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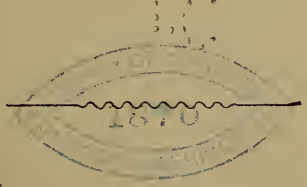

NEW YORK:
JESSE HANEY & CO., PUBLISHERS,
No. 119 NASSAU STREET.

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Messrs. JESSE HANEY & Co., of New York, are issuing quite a number of little works popularly known as "Haney's Handbook.s" These volumes are neatly printed, generally illustrated, and present an attractive appearance. They relate to quite a variety of subjects, but as each work is the production of some writer thoroughly posted on that particular subject, they may be depended upon for reliability. Each book is entirely complete in itself, but we think it would by no means prove a bad investment to secure them all.—*Philadelphia City Item.*

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Self Cure of Debility.

We notice that Messrs. Haney & Co., of this city, in addition to their extensive publication of periodicals, have engaged in the cheap book business. Their "Handbooks," evidently the work of writers fully conversant with their topics, are becoming quite popular, and deservedly so. They possess two characteristics which many books do not: they sell rapidly, and, what is more important to the purchaser, we believe they generally prove satisfactory to the buyer.—*New Yorker.*

PUBLISHERS' ANNOUNCEMENT.

THIS little book is issued in pursuance of our plan of publishing compact, simple, and reliable works, on subjects of interest and value to the public, at as reasonable prices as cost of faithful preparation, extent of demand, and fair profit on our outlay would warrant. Our "Trade Manuals" and "Handbooks," as well as other works, are examples.

In addition to this general reason, there were special ones inducing us to bring out the present volume. As is well known to many persons, we have devoted a special department in Haney's Journal, since its commencement, to the exposures of the swindles and humbugs by which so many are cheated. Among many other forms of fraud were exposed the various modes of imposition, deceit, and extortion practiced by medical pretenders. We hope and believe these articles have been the means of saving many persons from ignorant tampering with diseases, or the payment of extravagant fees to charlatans, who in many cases, so far from benefiting the patient, would do him positive injury. Numerous letters were received from persons who were thus saved from falling into these traps, asking us to recommend some practitioner or publication that *we* had confidence in. On the first point, our advice has always been—as it is now—if you need medical advice, your best plan is to consult your own family doctor, or some physician in your own neighborhood with whose reputation you are familiar, and *never* intrust yourself to *any* individual who boasts—in circulars, advertisements, or otherwise—of his own skill, or the virtue of his medical discoveries; who claims the possession of secrets unknown to other practitioners; or who publishes certificates from patients, or samples of his cases, as evidence of his skill; or who promises cures "after all others have failed." This is safe counsel

and well founded, though we have not space here for an exposure of the quackery with which the land is filled.

Where correspondents have asked us to advise them what books on health and kindred subjects they had better read, we have done our best to oblige them, though it was often difficult to find just the thing appropriate. There are numerous excellent works designed for professional readers, embracing every branch of medical knowledge; but these are not only very expensive, but are so full of technical terms and references as to be utterly unintelligible to the majority of readers. One or two books we found which answered moderately well, but they were not so complete and definite in their statements as was desirable; while one, which would otherwise have been one of the best, contained several statements which are contrary to the opinions of those medical men who rank highest in their profession, and whose opinions are held in the highest respect and esteem.

Believing that there was an evident and important want which would not be otherwise supplied, we decided to supply it ourselves. The gentleman to whom was intrusted the preparation of the work was one in whose knowledge of the subjects, and ability to present that knowledge in the best manner, we had the fullest confidence. We are entirely satisfied with the manner in which he has performed his task, and we present this book with our heartiest indorsement, believing it will be found worthy of confidence and successful in its objects. The proof sheets have also been submitted to several gentlemen in the profession, widely known and highly respected, and they have expressed their full and cordial appreciation of the truthfulness and value of the work.

This book is not designed to advertise or recommend any particular practitioner or medicine, or to advance any personal interest. Our business is publishing, and we design making a liberal publisher's profit, as well as to liberally compensate the author, but have no "ax to grind." To prevent any suspicion, however groundless, that the author had any desire to bring even his name to the special notice of patients, we have, in accordance with his own wishes as

well as our judgment, withheld it. We believe no one requiring the advice contained in this volume will consider the price unreasonable. It must be remembered that the cost of production, author's pay and our own profit, all come from the *sale of the book*. Works on special subjects, trade manuals, professional books, and especially *all good* medical works are high-priced. The comparatively small sale which they usually have, and the exceptionally high price it is necessary to pay to induce properly qualified persons, whose time is valuable in their own profession, to prepare them, are the principal reasons for this. The present volume sells at about the same price, in comparison with size and amount of matter, as most other reputable works on health and disease. The value of a work of this kind depends not on the amount of paper it contains but on the worth of its instructions. Hundreds of men will advise you gratuitously on almost any subject—so delightful is it to give advice—but if you want *reliable* advice you *pay* a lawyer, chemist, physician, or other person familiar with the subject in question, and the costly opinion is usually worth more than all the gratuitous ones put together.

Many books as large or larger than this, and purporting to treat on some of the subjects included herein, can be had for little or nothing, indeed less than nothing, for advertisers offer not only to send them without charge but also to pay the postage on them. It is the evil done by such books that we hope *this* volume, as a part of its mission, will rectify.

PREFACE.

IN this little work I have no novel theories to advance, and no wonderful discoveries to announce, which are to revolutionize medical science. I pretend to no monopoly of knowledge; the information contained in this book is, substantially, probably already familiar to all the medical profession, and I believe it is such as will meet their approval and indorsement. My aim has been to present, in convenient form for general circulation, facts which I believe are now well established by the investigations and experience of leading members of the profession.

My book is designed especially for three classes of readers. First, those who are suffering from nervous disorders, weakness, insufficiency of vital stamina, or from local derangements of a debilitating tendency, and who are desirous of guidance in overcoming their troubles. Secondly, those who are violating the laws of health, either by errors in diet, work, excesses or abuses, or otherwise, but who are ignorant or careless of the dangers which they incur. Thirdly, those who have nothing specially the matter with them, but who have been terrified by the misrepresentations of designing parties. It is these last who furnish the quacks with their greatest number of patients, and I never heard of an advertising practitioner refusing to treat *any* person, provided he had money. It is not simply a waste of money that is incurred by these victims; irreparable mischief is sometimes done by such reckless administration of medicine; or, if merely inert preparations are given, the victim may be driven to despair by the failure to stop perfectly natural phenomena.

The necessity for some work which would present plainly and truthfully the information needed by such a large number of persons, especially among the young, has been becoming more and more apparent to thinking men and

women. Henry Ward Beecher has frequently, in sermons and lectures, exhorted the young against the snares of their own passions or the beguilement of evil associates, and cautioned them, as clearly as could be appropriately done under the circumstances, against vile books of quacks and others. Mrs. H. B. Stowe, in an article in Mrs. H. W. Beecher's late magazine, the Mother at Home, urged upon parents the necessity of offsetting the influence of these charlatans by teaching the children the truth concerning their organizations. Mr. Robert Bonner has wielded the vast power of the New York Ledger against the quacks with all the vigor of of his keen pen, though fettered by the fact that not a tenth of the enormities practiced by them can be detailed in such a journal, designed for families, in which even the most distant allusion to any subject at all approaching indelicacy is never allowed to appear.

We might instance many others who have warred against this system of imposture. Many editors have shut their columns against the advertisements of the parties, and were this done by all, the evil might be lessened, though, as circulars can always be resorted to should admission into newspapers be refused, quackery can never be suppressed until the people are taught the real nature and proper treatment of the "specialties" of the quacks, and so, knowing the truth, are able to distinguish without aid the utter ignorance of the pretenders, and the worthlessness of their statements and claims.

The surest way to destroy quackery is to present the actual truth regarding those matters to which their business is mainly restricted. Clearly convince a boy that nothing ails him, or that his malady is within his own control if he will faithfully adhere to a simple course of self-treatment, and warnings against quacks are needless; but to convince him, you must explain the appearances which he has been led to believe dangerous symptoms. Denouncing a vice will not always save the victim; he must be told how to overcome the habit, and how to remedy the evils it may have entailed. I am aware that many good people are very reticent concerning all matters pertaining to the sexual organism—that many consider that the young should be kept in ignorance

of all such subjects. This is simply impossible, and the attempt to do so aids quacks by inducing a clandestine perusal of their books. Of course knowledge should be measured somewhat by age, but it is safer for a parent to impart delicately, lovingly, such as may be suited to the child's years, than to have curiosity stimulated, as it surely will be, by the bits of forbidden information, picked up from impure companions or casual reading. No mere *thing* or *fact* among God's creations is, *in itself*, impure; it is the associations which make any so. Let knowledge thereof be presented properly, and there will be less likelihood of the evil associations.

I am conscious that much must depend on circumstances and the feelings of parents. I would much rather defer to what must in many cases prove their better judgment. I would even wish that this volume might pass through the hands of parents or teachers before reaching any reader less than fourteen or sixteen years of age. I would like each parent to select what he thinks best suited to his child's case; and should it fall into the hands of any young reader, I would advise him to take counsel about it with his parents, teacher, or clergyman; they may perhaps aid him in carrying out its suggestions; he will certainly have their sympathy, and it is rarely unsafe to trust your parents with any matter in which you are interested.

The topics treated in this book are such as are most frequently inquired about, and most important to be known. Every statement made has been carefully weighed and tested by the best authorities; nothing has been said carelessly. I have striven to be plain and explicit in all statements, to give clear and full details for all necessary treatment, and to leave no room for any misunderstanding. It would be manifestly impracticable to confine the work to subjects relating merely to any particular age, as its natural scope must, in accordance with my proposed plan, include all ages, from infancy upward. I trust that each reader will find all information necessary to his individual case. I believe there is nothing in the book which can in the slightest degree pander to any improper feeling; and I have intentionally avoided engravings and physiological details,

because I do not think them necessary to the proper understanding of my subjects, or for successful self treatment.

Regarding the subject of self treatment, it may be proper to say a few words here. While a good physician's advice is generally useful in all cases, inspiring confidence and relieving the patient from responsibility, ninety-nine out of a hundred of those who will seek guidance from these pages can treat their own cases without difficulty, by following the instructions, if they will only persevere. This treatment is harmless. If nothing ails you it will do no harm, and it is the surest, quickest, and safest you can adopt. I think I have made everything so plain (even to repeating things over occasionally) that you will have little difficulty in ascertaining your real condition and overcoming your trouble, should any exist. Most of the difficulties for which quacks are consulted are among the easiest and simplest of regular medical practice (though represented to require rare skill and special experience), and of all ailments the safest you can trust to your own treatment, if you don't mess with medicines. Let me say here, if you need any treatment further than that laid down here, don't consult *any* advertising practitioner. Your own family physician, or any known and esteemed one in your vicinity, will undoubtedly do better for you, at less expense and with more sympathy and honor, than any stranger you would be likely to fall in with. I believe, however, that the necessities of nearly all readers will be met in this little book.

The reader will perceive that I have drawn considerably from the works of others; by this means I have endeavored to present the best attainable information, thereby giving the results obtained by many workers in the cause of health, each of whom has had experience in some particular branches less familiar to other practitioners. The result, I trust, will be to the advantage of the reader. I have, of course, endeavored to give full credit in all cases where I have been indebted to the labors of others.

DEBILITY, CONSUMPTION, ETC.

CHAPTER I.

CONSTITUTIONAL INHERITANCE—PREDISPOSITION TO PARTICULAR DISEASES—INFLUENCE OF PARENTS' HEALTH AND CONDITION ON OFFSPRING—CAUSES OF HEREDITARY DISEASES AND LACK OF VIGOR IN OFFSPRING—MOTHER'S DUTIES.

FIRST among the influences to which is due the vigor or delicacy of the individual is inheritance. It is one of the fundamental laws of the Creator that like shall produce like. Not that a particular disease in the parent will inevitably be reproduced in the offspring, but in most cases the *tendency* toward that disease will be found; thus, where father or mother is consumptive, though the child may not actually have consumption, he will be very apt to be troubled with coughs and colds upon slight exposure, showing that there is a predisposition toward affections of the lungs. Where both parents are afflicted with, or have a tendency toward, the same disease, that disease will probably appear in an aggravated form in the offspring. On the other hand, where one parent possesses great vigor in the organs where the other is weak, the child is apt to have neither the vigor of the one nor the weakness of the other.

There are sometimes apparent freaks in the laws of descent—or, more probably, principles not yet thoroughly understood—such as a hereditary disease skipping several generations and appearing, without any immediate perceptible cause, after the fact of its ever existing in the family had become almost forgotten. So, too, of children resembling neither parent, but a grandparent or more remote

ancestor, or even a person out of the direct line of descent, as an uncle or aunt, or possibly a still more distant relative. These family resemblances are curious and interesting, not always confined to mere features, but extending to disposition. For all this, however, it is safe to assume, that, as a general rule, the degree of vigor, physical and mental, in the parents will determine the same in the offspring. This influence extends even to temporary conditions. That the son of a confirmed sot or debauchee should display a love for liquor or a relish for licentiousness, or be feeble in constitution, is not to be wondered at; but numerous cases are recorded of men usually remarkable for temperance and morality indulging in one single spree, and children begotten during this period of intoxication have been imbued with an irresistible craving for strong drink, and have finally filled drunkards' graves. So, too, temporary depression of spirits, excessive anxiety, or other unfavorable states of mind, may produce in the offspring a permanent moroseness or unhappiness of disposition. That the children of men remarkable for brilliancy of intellect so seldom display a similar gift, is doubtless, in many cases, attributable to the jaded, exhausted condition in which these men allow their minds to be driven by the requirements of their position, or the promptings of their own genius.

No man can predetermine what powers of mind or body shall be his inheritance; but the legacy which he shall hand down to his descendants is in great measure subject to his control, and it is for this reason mainly that I dwell upon this matter. The scriptural assertion that the sins of the father shall be visited upon the children of the third and fourth generations is not a threat to those unborn beings, who have no control or responsibility in the matter, but the declaration of a physical law, and a solemn admonition to those who would violate any law of their being. The warning extends to matters even beyond the code of strict morality. No one has a right to heedlessly or willfully entail upon another an impaired constitution, or any bodily or mental affliction. While, therefore, mutual love should be the primary consideration in selecting matrimonial companions, it behooves all to pay due regard to the

physical well-being of their children in making their selection. The great Haller mentions that he knew "a very remarkable instance of two noble ladies, who got husbands on account of their wealth, although they were nearly idiots, and from whom this mental defect has extended for a century into several families, so that some of all their descendants still continue idiots in the fourth, and even the fifth generation." Dr. Combe says: "I have lately met with a very painful instance of a similar nature, in which insanity suddenly appeared in a family solely in consequence of a strong hereditary predisposition. In another family, in which scrofula descended from both parents, all the children were affected by it in its worst forms, and years of suffering ensued to those who survived."

The most remarkable example of the hereditary transmission of *qualities* with which I am acquainted is that of Moses Le Compte, given in the Baltimore Medical and Physical Repository. Le Compte was not only blind, but he had *thirty-seven* children and grandchildren, who also became blind. In all of them the blindness began about the age of fifteen or sixteen, and terminated in the total loss of sight about the age of twenty-two. Dr. Holland mentions several cases of a similar kind in his Medical Notes and Reflections.

Dr. Combe has so ably treated the subject, and his opinion and knowledge have had, deservedly, so great weight during his life and since his death, that I deem no apology necessary for the following lengthy extract from his Treatise on Infancy:

"Next to the direct inheritance of a family predisposition, the constitutional tendencies *derived from the union of parents too nearly allied in blood*, and more especially if themselves of a tainted stock, are perhaps the most prejudicial to infant health; and their baneful effects are nowhere more strikingly shown than in the deteriorated offspring of some of the royal families of Europe, in which frequent intermarriages have taken place without any regard being paid to the morbid predisposition on either side. They are, however, often observed in private life also, and especially among the Jews. In allusion to this Dr. Elliot-

son remarks, that 'the rich Jews in this country have the same bad custom of marrying first cousins; and I never saw so many instances of squinting, stammering, peculiarity of manner, imbecility, or insanity, in all their various degrees, intense nervousness, etc., in an equal number of other persons.' Where very near relations marry who are themselves infirm, there is usually either no progeny, or one characterized by unusual delicacy of constitution.

"The *period of life at which the parents marry* exercises a great influence on the health and qualities of the offspring. If the parents have married at a very early age, and before the full development and maturity of their own organism, the children are generally more deficient in stamina than those born subsequently and under more favorable circumstances. This, indeed, is one of the reasons why the children of the same family often present considerable differences of constitution and character, and why the first-born is occasionally puny in an otherwise vigorous race. In this country, it may be stated as the general rule, that females do not attain their full development before from twenty to twenty-five years of age, and males between twenty-five and thirty.

"Late marriages are scarcely less unfavorable to the health of the offspring, when there is any, than those contracted in very early life. Indeed, as remarked by Dr. Steinau, this seems to be one of the chief causes of the delicacy frequently observed in the children of healthy parents. Beyond a certain age, neither animals nor plants are capable of producing a vigorous progeny; and hence, the postponement of marriage beyond the period of maturity, now so common, especially among professional men suffering under the influence of strong competition for a livelihood, is not unfrequently a source of evil to their offspring. Every observer, whose attention has been directed to the subject, must have seen examples of this kind; and I have met with several in which the infirm health of the children was obviously ascribable to the parents not having married till their own vigor had begun to decline. In the natural order of events, the impulse to propagate has lost much of its force before the age of forty, and comparatively

few children are born after that age to parents who have been united soon after attaining maturity.

"Another cause of infirm health in children, which ought not to be overlooked, is, *great disparity of years* in the two parents. When one of the parents is very young, and the other already advanced in life, the constitution of the offspring is very rarely sound; but it is sufficient to call attention to the fact."

Another and very influential source of delicacy in children is, a *habitualty deteriorated state of health in the parents*, arising chiefly from mismanagement or neglect, and showing itself in a lowered tone of all the animal functions, and a general feeling of not being well. Of all the causes of this description, perhaps the most frequent and injurious to the offspring is habitual indigestion, and its consequence, *impaired nutrition*. Sir James Clark has shown very clearly, in his admirable work on Consumption, that the appearance of scrofula in the families of persons not themselves tainted by it, is often partly owing to the hurtful influence of dyspepsia in the parent, brought on and kept in activity by mental indolence, irregularities of regimen, and impure air. It is in this way that many persons pass years of their lives in a constant state of suffering from "bilious" and "stomach" complaints, induced by inattention to diet, exercise, cleanliness, ventilation, choice of locality, a free command of light, or other equally removable causes, and unthinkingly turn over a part of the penalty upon their innocent offspring. Not aware of the real consequences of their conduct, they cannot summon resolution to give up the indulgences to which they have accustomed themselves, or to persevere in the easy use of the means required for the preservation of their own health; and they are surprised when assured that, while thus trifling with their own comfort, they are sporting with the welfare and fate of those on whom their whole affections are one day to be centered; yet such is the fact!

The mother's influence is great over the future infant; but the precautions for her own and the child's welfare are simple. Cleanliness, exercise (never violent or prolonged to exhaustion), simple food, fresh air, cheerfulness, occupa-

tion, and loose apparel, are the chief requisites. It is a mistake to suppose that the food should be greatly increased, or more hearty in character; it should only be increased where the appetite and improved digestion really call for it, and where there is no danger of becoming surfeited. Pastry, confectionery, and all articles likely to produce indigestion, should be avoided, as should the exessive use of tea, coffee, or other exciting beverages. Spirits, wine, and beer, "for strengthening," are nine times in ten an unalloyed evil. Strong feelings, excitement, anger, etc., should be avoided. Simple diet and fruits should keep the stomach and bowels in proper condition, without recourse to medicine. The tendency of nature is toward an improved state of health at this time, and with due regard for the laws of health, little anxiety need be felt as the crisis approaches. A *gentle* and experienced physician, not over anxious to "assist" nature, should, of course, be secured.

CHAPTER II.

INFANCY—CARE OF YOUNG CHILDREN.

I HAVE said that any constitutional taint or weakness in the parent will be apt to be transmitted to the child, in either precisely the same form or in a tendency toward diseases or weakness of a *similar* kind to those of the parent. Where the constitution of one parent is exceedingly vigorous in the respects in which the other parent is feeble, a modifying influence is exerted to lessen this tendency in the child; so, too, children in some cases possess a better constitution than might be expected from the condition of the parents. But seeming health in the children of unhealthy parents is often deceptive. Beneath the surface of apparent vigor often lurk the seeds of death, which will develop with growth. In cases of strong hereditary tendency toward blindness, insanity, consumption, scrofula, or other very serious disease, no efforts may prove availing to prevent the vic-

tim's fate; but where there is but slight tendency toward even serious complaints, and especially where the inheritance seems rather a mere general want of vitality and health, it is often possible to build up health and strength, and ward off entirely the threatened weakness. It is in childhood that these efforts should be made; indeed, from earliest infancy the child should be carefully guarded from those influences which are liable to attack his weak points. If the lungs lack strength, slight causes will produce colds, and these will be more dangerous to him than to other children.

Delicate children, where there is no special hereditary weakness, often make the strongest, healthiest men and women. Their feebleness causes greater care to be taken of them; while naturally strong children are submitted to exposures, errors in diet, and other violations of the laws of health which impair their vigor. Much has been said in favor of the "hardening process" to which the children of the poor and ignorant are frequently subjected, and this is contrasted with the supposed excessive delicacy with which the offspring of the wealthy are cared for. That confinement to over-heated nurseries, over-feeding, and want of fresh air and exercise, are evils to which the infants of rich parents are sometimes exposed, is doubtless true. That these evils are escaped by children allowed to shift for themselves, and forced to incur cold, hunger, and hard usage, may be also true. But advocates of the hardening system, in their admiration of the hardy men produced by that system, apparently lose sight of the fearful mortality among the children subjected to this ordeal; and while the very strong may survive it and become powerful men, thousands less vigorous are killed by it.

The wealthy are remiss, not so much in caring for their children as in neglecting their own health, and transmitting impaired constitutions to their offspring.

I shall, further on, speak more fully of ventilation, exercise, etc.; but so much of his future welfare depends on the child's proper care in infancy, that I shall here briefly refer to the main points to be observed. Dr. Combe says:

"In infancy, living in a pure dry atmosphere of moderate

temperature is the best safeguard of health; and in early life, the rapid recovery which often ensues, even in very unfavorable circumstances, after removal from the confined air of a city to the pure atmosphere of the country, has long been a matter of general observation. For the same reason, the mortality in infancy always bears a direct relation to the impurity of the atmosphere; it is greater in towns than in the country, and in crowded manufacturing districts than in those which are less populous and contaminated."

A fallacious but popular notion is that infants have a great power of resisting external cold; on the contrary, as the power of generating heat is small for the first two or three years of life—particularly in the earliest months—it is necessary that the body be furnished with warm clothing, and the temperature of the room kept up to a comfortably high degree (65° Fahrenheit), and a careful avoidance of sudden changes or draughts. The nursery should be thoroughly aired each day; but while this is being done the infant should be removed to another suitable room, and the nursery restored to its proper warmth before he again enters it. The skin of young children being extremely sensitive, they are affected by variations in temperature not perceptible to adults. On account of this sensitiveness their clothing should not be tight or rough, and in handling, the utmost gentleness should be observed.

The mother's milk is the natural food of the infant, and this milk is at first thin and watery for a beneficial purpose —to cleanse the bowels and prepare the child for his new existence. The first milk secreted is the very thing first needed by the infant. Where the mother's health permits her to nurse the child it is better for him than the substitution of a nurse. If a nurse must be employed, it is important that her own child should have been born at as nearly as possible the same time as the infant she is called upon to care for, or her milk may prove too hearty and disagree with her charge. As the child's food is simple, and is taken in small quantities, he should be frequently supplied, but never tempted to take nourishment when he does not desire it, and he should be restrained when it is found the stomach is

becoming overloaded. Beef tea, arrowroot and other unnatural food must be avoided. Ordinarily the milk is sufficiently nourishing, and the infant's stomach has no power to digest, in early infancy, any of these substances.

Next to the mother's milk (or that of a healthy nurse whose own child was born at about the same time as her charge) cow's milk is the most suitable food for infants; indeed some experienced practitioners believe it equally easy to raise children on it. Good milk is of course essential, and it should not be too much diluted, as is often the case. Very few, even among experienced nurses, know the proper quantity for an infant's supply. Few children one month old are satisfied with less than one pint of pure milk daily, while many take a quart; the average is between these two extremes. Only sufficient water should be added to make it pleasantly warm; two teaspoonfuls of boiling water to a pint of pure cool milk is enough. A common error is to add too much sweetening; a little is almost always desirable, but it should be always in moderation. A bottle has advantages over a spoon for feeding, approaching more nearly to the child's natural mode of taking sustenance. An infant's food should never be permitted to become stale; even a degree of sourness, too slight to be appreciated by adults will exert an injurious influence on the child.

The use of medicine in infancy is another evil which should be more carefully avoided. With proper care medicine is seldom required, and in those cases where it is necessary it should be administered only at the direction of a physician. The "slops" of ignorant nurses are more suited to the slop-pail than a child's stomach. The medicines sold for producing sleep are always opiates, and there is risk in using them. Thousands of children are killed yearly by these preparations, but as they die slowly, and little attention is attracted to the cause, their deaths do not usually come under the investigations of the coroners. Sleeping potions may be useful in rare instances, but like all other powerful medicines should be restricted to a doctor's special orders.

A number of proprietary articles have been recommended

by their manufacturers as substitutes for mother's milk. One formula discovered by Liebig would seem in theory to be just the thing, as it claims to be chemically identical therewith. Unfortunately children fed upon it are reported almost invariably to die.

During teething there is special danger of taking cold. Tepid baths, moderate exercise, and careful attention to clothing and diet, will be important. Lancing the gums will often afford relief when the teeth have difficulty in forcing their way through.

CHAPTER III.

OVERCOMING CONSTITUTIONAL WEAKNESS AND BUILDING UP STRONG CONSTITUTIONS.

EXCEPT when beset with strong antagonistic influences the efforts of nature are toward health and vigor. It was not meant that we should be weak and ailing; we are so through our own ignorance or sinfulness, or from the errors of preceding generations. As a general rule it is safe to say that all members of the human race were designed to go through the various stages of growth, maturity and decline, until they passed away as the "sere and yellow leaf." There must, in the nature of things, be many individual failures, just as many plants are destroyed or die before fulfilling their various duties. But one of the strongest proofs that the aim of nature is toward perfection in each case is the fact that toward the birth of a child the mother's health often improves, and a fatal disease may even be stayed until the child is born.

Another evidence is the fact that a disease of this kind is sometimes escaped by the child; and though the mother may rapidly decline, for in general the disease renews its attacks with redoubled fury after the temporary stay, the child may never show any signs of its inheritance. It is true that care must be taken to guard him against anything

likely to develop the *tendency* thereto possibly lurking in his constitution; but that this may be successfully combatted is strong encouragement for all to endeavor to establish good health, even though they may know or suspect their natural feebleness. The stoutest and most muscular persons are not always possessed of the most vitality; they are often the soonest prostrated by disease, and often the least able to resist its inroads. On the other hand, how frequently do delicate children develop into men of long life and extreme vitality, resisting diseases which overpower their apparently more robust neighbors. But they cannot do this unless proper precautions be taken. Their good fortune is due, doubtless, in great measure to the fact that they *are* careful of themselves.

Dr. Dio Lewis, in his own person, testifies that even those of feeble frame, and apparently little constitutional vigor, may be developed into strong, powerful and vigorous manhood. From a puny youth, scarcely able to protect himself against bullies of his own age, he became famous for his muscular development, and for the vigor and soundness of his vital organs. His may be an extreme case, but it preaches a strong sermon against giving up to weakness and degeneracy without attempting a regeneration which is shown to be not only possible but, in most cases, with not very severe efforts in the right direction, entirely in accordance with the laws of our being.

While it is desirable that the building up of the constitution should commence in the earliest years, it is never too late to make the attempt, and unless the vital force is very nearly exhausted their effort will not be without avail. At whatever age the beginning is made, whether under the patient's own management or in his youth by parents, I would advise mild measures and the avoidance of extremes. Spasmodic efforts are of but slight benefit, if of any. In entering upon a new course we are too apt to start off with a flourish, and gradually allow a dwindling down to perhaps absolute neglect. The opposite course is the one to be commended. Let our exercise and endurance increase as we increase our power. Of course this advice is not meant to refer to changes in any *positively bad* habits; gluttony

tobacco, and any other enervating influence, should be discarded without delay—the sooner the better.

As to the actual details of this strengthening process, appropriate information will be found in the chapters on bathing, exercise, sleep, etc.

The most important point in this attempt to invigorate the constitution is self-restraint. What *not* to do is as important as what to do. When we have learned to live regularly, eat moderately, restrain our passions, take plenty of sleep, exercise and fresh air, and avoid liquor and tobacco, we require few special prescriptions. The wonder is, not that so many are feeble and "out of sorts," but that we manage after all to get along so comfortably despite our outrageous violations of those laws on which health depends. But these transgressors do not know the full pleasure of complete health. They congratulate themselves if they have no special, obvious ailment to bemoan, but have no experience of that exuberant state of bodily vigor which makes living itself a continuous joy.

If any reader expects me to give him the secret of any elixir for *speedily* insuring him vigor and long life, I must disappoint him. My plan though, I believe, sure, is slow; it involves the labor of a lifetime, but this labor is not necessarily disagreeable. The habits of temperate living, moderate enjoyments, and useful occupation of mind or body, will soon become as easy as their opposites. A man will finally be restrained from excessive eating by his stomach if his head doesn't, and there is scarcely a more miserable object on earth than a professed pleasure-seeker.

Beyond the regulations applicable to all cases, those who are predisposed to any particular weakness or disease should specially fortify and guard themselves at this point, avoiding whatever has the tendency to develop that disease or aggravate the weakness.

CHAPTER IV.

WANT OF NOURISHMENT—INAPPROPRIATE FOOD.

IN this country, want is comparatively unknown, so that the existence on the very verge of starvation, which is the common lot of vast multitudes of the industrious classes in European countries, is the fate of only a few individuals in our large cities. With us, want of proper nourishment is the result of ignorance rather than inability to secure it. Custom has even caused those portions of certain articles of food to be discarded, which contain some of the most important elements of nutrition; for instance, the bran of wheat, which is so carefully sifted out of our flour.

Again, there is a tendency to excess in consuming articles calculated for the production of heat rather than nourishment. In cold weather, the warmth of the body must be largely maintained by the eating of food composed mainly of carbon; thus the appetite for buckwheat cakes and molasses, fat meat, and other food containing large quantities of carbon, is a natural one. But in warm weather, many will consume heating articles of food at regular meals, and then add candy between whiles. After that, when overcome with the heat of the weather and the heat they have themselves created, the very means resorted to to cool themselves is frequently but adding fuel to the fire. I do not here speak of alcoholic beverages; the simple carbonic-acid water, the "soda water" of the druggist, while it temporarily assuages thirst, eventually increases the heat by its sugary syrup.

A popular beverage in the country is "switchell," a compound of molasses, ginger, vinegar and water. The molasses supplies carbon, and feeds the flame, the spice only stimulates, and the vinegar I consider injurious in any considerable quantity.. Sweetened lemonade is well known to increase the thirst after a momentary assuagement. Without sugar, lemon, or other fruit juice, in water would doubtless be a refreshing and healthful beverage. It is claimed by those who have experimented thoroughly, that the most

agreeable drink for warm weather or for those employed in places of very high temperature, is water in which oat or Indian meal has been soaked; this not only slakes thirst but cools the body.

Coming back to the subject of defective nutrition, it must be remembered that it is what we digest and not what we swallow which supports us; so digestion must be promoted by exercise, etc. While health and vigor may be maintained on either animal or vegetable food, or on a mixed diet composed partly of each, it seems that the support derived from each is somewhat different. Those animals which consume flesh are better fitted for severe but temporary exertion, than are those who live on vegetable substance, but in a long-continued task on the strength, the latter will surpass the former. So of human beings, the flesh-eaters are capable of more severe temperory exertion, but their power of endurance is exhausted sooner. The vegetable-eaters will hold out longest, though perhaps at no time capable of as severe a temporary strain on their powers. When a person is engaged in manual labors, or takes a large amount of exercise, it seems probable that an exclusively vegetable diet will not properly support his strength. When his occupation is sedentary, or where, though much in the open air, he does not undergo any great muscular exertion, vegetables should form a larger proportion of the food, and in many cases an entirely or nearly vegetable diet has been found the best. Much must depend on the person's own preferences; a little experimenting in his own case may afford him useful hints for guidance.

I have already spoken of the danger incurred by infants reared by hand of having their milk too much diluted with water; another danger, less easy of detection, occurs in some cases where the child is nursed by the mother. The supply of milk is not always to be determined by the size of the breasts—fleshy women often supply scanty milk, though apparently well developed. Where there is a suspicion of this, from the child's frequent hungry fits, or its feebleness, a resort to the nursing-bottle may be advantageous. Still one more fact in connection with scanty nourishment of babes in early infancy, the digestive organs are capable of

acting only on *animal* nutriment. Before teething, *all* vegetable preparations at the very best serve merely as waste matter to pass through the system; many a child has starved with his stomach full of farina, arrow-root, or other vegetable preparation. In all such cases the sole nourishment is probably derived from the milk which is added to these articles. Milk is the natural nourishment of very young infants, and nothing can be found to take its place.

I am a strong believer in pure fresh milk for *all* children—and even for grown persons. Of course there may be peculiar constitutions among adults and large children where milk is not beneficial, but these are less numerous than many suppose. The substitution of milk for molasses eaten with mush, at a Massachusetts reform school, was followed by increased health in the children. It is incorrect to suppose milk digests badly, it is almost entirely taken up. In grown persons milk alone would not supply the necessary waste, but it has been found a most beneficial article even in some forms of dyspepsia, where the patient had carefully avoided milk, even in coffee, under the supposition that it was injurious for him. It sometimes disagrees with persons because they stuff their stomachs with too great a variety of other things.

A modern writer of eminence lays it down as one of the most common causes of consumption in young people, that just at the age when their physical system is undergoing one of the most important changes, say from thirteen to sixteen, milk is generally dropped, and nothing equally rich in nourishment, (nitrogen) substituted in its place; and to the same cause (want of *nourishing* diet) is ascribed much of the weakness, nervousness, and liability to sickness. The writer just quoted advises that good fresh milk should be used daily by girls in their "teens," and tea and coffee avoided.

The bad consequences of defective nourishment are not confined in their operation to the bodily constitution of the poorly fed. Their minds also are deteriorated. The pressure of poverty is unfavorable to the growth of refinement and morality, and crime and turbulence are never so much to be dreaded as during times of scarcity and manufacturing or agricultural distress. Bodily health, satisfied appe-

tite, and peace of mind, are great promoters of individual morality and public tranquility; and whenever these are encroached upon in any great class of the community, discontent and crime are sure to follow.

Says Dr. Combe in his work on Digestion, referring to the insufficiency of food so much more common in England, to which country his remarks apply, than here, but still applicable to some cases in our own land:

"Among the poorer classes, the children as well as the parents suffer much both physically and morally from insufficient food. Their diet, being chiefly of a vegetable nature, and consisting of porridge, potatoes and soups, with very little butcher-meat, proves far from adequate to carry on vigorous growth in the one, or repair waste in the other; hence arise in the young an imperfect development of the bodily organization, a corresponding deficiency of mental power, and a diminished capability of resisting the causes of disease. In work-houses and other charitable institutions, ample evidence of these deficiencies obtrudes itself upon our notice, in the weak and stunted forms and very moderate capacities of the children. Under an impoverished diet, indeed, the moral and intellectual capacity is deteriorated as certainly as the bodily; and a full exposition of this fact, and the principles on which it is founded, would be a great public benefit.

"Even among the children of the wealthier classes, a sufficiency of nourishing food is not always provided with the care which it deserves. Both in families and in boarding-schools, it is no uncommon practice to stint the healthy appetites of the young, or to feed them with soups and other eatables which contain too little nutriment in proportion to their bulk. I am acquainted with many instances of this most injudicious error, and have seen scrofula and severe digestive affections brought on by persevering in it through sheer ignorance, and even in the belief that such 'temperance' was healthful. Where adequate exercise is permitted, and the food is plain and nourishing, hurtful excess in eating will rarely occur, at least in healthy children."

The lack of *suitable* food may lead to over-eating of that which is unsuitable, for there will be a craving which calls

for satisfaction. When the food is *proper* there is not much danger of eating too much; it is generally the *improper* food which does the evil, overloading the stomach, but failing to afford the requisite nourishment. The unsatisfied appetite craves more, but the improper food never satisfies.

CHAPTER V.

EVILS OF OVER-EATING—USE AND ABUSE OF FOOD.

WHILE a sufficiency of food is absolutely necessary to preserve the health, and enable the various organs of the body to properly perform their several functions, the almost universal error is in eating too much rather than too little. Experiments have been made in prisons, hospitals and elsewhere, to determine on what amount of food the body can be sustained, and on what amount it best thrives. Such experiments are useful, but the results arrived at are not a safe guide for people in general where circumstances vary in each individual case; but the fact remains, that the almost universal error is to eat too much. It is astonishing what a vast number of apparently very dissimilar maladies are really but the result of over-eating. Persons frequently imagine lungs, liver, kidneys or other organs affected, when the trouble is in the stomach. Not only so, but if the stomach is continually kept disordered other organs will in time be affected.

Professor Caldwell, of Transylvania University, Ky., in one of his essays, years ago inveighed eloquently against the intemperance in eating practiced in this country, and said that one American consumes as much food as two Highlanders or two Swiss, although the latter are among the stoutest of the race. "Intemperate eating," said he, "is perhaps the most universal fault we commit; we are all guilty of it—not occasionally, but habitually, and almost uniformly—from the cradle to the grave. It is the bane alike of our infancy and youth, our maturity and age. It

is infinitely more common than intemperance in drinking, and the aggregate of the mischief it does is greater. For every reeling drunkard that disgraces our country, it contains one hundred gluttons—persons, I mean, who eat to excess and suffer by the practice." "How, indeed," he afterward exclaims, "can the case be otherwise, while children and youth are regularly taught, hired, bribed, or tempted to over-eat themselves from their birth? Do you ask me for evidence in proof of this charge? Go to our dining-rooms, nurseries, to our bakeries, candy stores and pleasure gardens—go even to sickrooms—and you will find it in abundance. You will witness there innumerable scenes of gormandizing, not only productive of disease in those concerned in them, but in many instances offensive to beholders. The frightful mess often consists of all sorts of eatable materials that can be crowded together, and its only measure is the endurance of appetite and the capacity of the stomach. Like the ox in rich pasture ground, or the swine at his swill trough, men stow away their viands until they have neither desire nor room for any more. I do not say that such eating matches always and everywhere occur among us; but I *do* say that they occur too frequently, and that they form fit subjects for caricature pictures by European tourists of our domestic manners. I add, however, that similar scenes present themselves in every country I have visited, where provisions are abundant and cheap."

With a little common sense and a little self-restraint, almost any one can determine what amount of food is best suited to his case. If he suffers on any day from uncomfortable feelings, dullness, lassitude, with perhaps a heaviness at the stomach, let him, the next day, reduce his food at each meal, say one-third or one-quarter. By noting the effect from day to day the proper amount will be arrived at.

One of the gravest mistakes on the part of parents is compelling children to eat against their wills, or tempting them in any way to go beyond what their appetite calls for. If a child accumulates too much food upon his plate there is no "saving" in making him eat it; the lesson against waste is in such cases more than balanced by the injury to his stomach, and the moral effect of the worse than swinish

stuffing. When children are excited with play or other employment, and feel no appetite, to compel them to eat a hearty meal, merely because it is meal time, is unwise.

Next to the quantity, the quality of the food is important. There are many reasons going to prove that man was designed to use both meat and vegetable food; but I think most persons eat too much meat. Many of the most robust, vigorous and muscular tribes and nations subsist, either mainly or wholly, on vegetable productions. Considering the vast amount of pork consumed by our farmers, added to the heavy salæratus bread, and generally badly cooked food, it is not surprising that so many suffer from dyspepsia, in spite of pure air and active out-door exercise.

Growing persons require more food, other circumstances being equal, than those who have attained their full development; so a boy may eat more than his father without proving that he is greedy. The season, weather, and innumerable circumstances affect the quantity of food which it is proper to consume. So, too, of the kind of food; in winter meat and hearty articles may be eaten, which in summer would prove a burden to the stomach.

To determine when the right quantity has been reached, there is probably no guide but the person's own feelings. The time to stop eating is just before satiety; then there is a pleasant feeling; appetite, though appeased, is not turned to loathing, as is the case when *satiety* is reached. If there is any doubt in the eater's mind, he had better stop when he would still relish a *trifle* more. It is rare that people err on the side of denying themselves when the means of gratification is within their reach.

One common, but most pernicious, form of over-eating is the nibbling between meals of any little dainty, pie, cake, confectionery, or whatever it may be. The stomach must have rest to maintain its proper condition and perform its functions. Three meals a day give it about all the work it can fairly perform, and for many two meals would be enough. Now a single cracker will set the machinery in motion; it requires the same processes that an ordinary meal would, though, of course, there would be less *overloading;* it would be merely compelling activity when rest

should have been given. It is perhaps too much to ask that children shall never have a stick of candy, and that Julia shall refuse to partake of the bonbons her beau brings her of an evening. To one not suffering from dyspepsia ailments, a little latitude may be occasionally allowed; but the *habit* of eating even trifles, merely for want of something to do or to gratify a perverted taste, will surely end in debility of the digestive organs and general ill health. Infinite mischief is done by nurses and parents, in giving children tempting articles of food at improper times, and when nature does not require nourishment, merely to prevent teasing or cause them to keep quiet. The display of articles of food on table or sideboard, will often arouse a fictitious appetite which it is hurtful to gratify. Ladies who think they must have lunches of indigestible articles every time they go shopping are making a grave mistake.

So confirmed does this habit of eating "promiscuously" become if indulged, that the victim frequently gets up in the night to gormandize; cannot eat at meal time; loses natural appetite, but becomes tormented by inexplicable cravings, in some cases for disgusting or unnatural articles for food.

The use of sauces or other articles, for stimulating the appetite, often leads to taking more food than the system needs or can properly dispose of. Mild spices in modera tion, catsups, pickles, and relishes of like nature, need not be totally discarded by persons in ordinary health, indeed, being, in *very small* quantities, not noticeably injurious; but pepper and salt are often used in excess. The love of excessive seasoning, of highly spiced dishes, or of biting sauces, is pretty sure proof of perverted taste and impaired digestion.

It is not the mere impairment of the powers of digestion that is to be found as the result of over-eating. Where the digestion is naturally powerful, it will often dispose of more food, if forced upon the stomach beyond the plain and natural calls of healthy appetite, than is required to fully nourish the body, and undue stimulation and inflammation ensue. Many sudden attacks of inflammatory disease unquestionably result in this way, and death may ensue. Headache,

palpitation of the heart, wakefulness, restlessness, dullness and want of energy, and many other disagreeable symptoms, result from over-eating and the consequent dyspepsia. Thousands of persons are treated for consumption by special practitioners who are really suffering from phthisis of dyspeptic origin; and a host of ailments, from the treatment of which advertising pretenders reap rich harvests, are caused by this same impairment of the digestive function.

Cutting down the quantity, paying more attention to the quality and character of the food, and following advice contained in other chapters of this book, will usually prove effective in all ordinary digestive troubles.

CHAPTER VI.

INVALIDISM—IMAGINARY WEAKNESS.

MANY persons are inclined, upon the slightest indisposition, to retire to bed, coddle themselves, moan over their suffering, and appear to take a sort of morbid delight in being just as sick as they possibly can. There are, doubtless, cases where it would be simply folly *not* to go to bed and resign oneself to proper medical treatment; but in half the "sickness" activity and fresh air will remove all disagreeable symptoms, while a close room, idleness, and the fretting inevitably attendant on a case of trifling indisposition which the patient allows himself to pamper, will often really produce a fit of serious illness.

Sometimes this "imaginary invalidism" takes so strong a hold upon the victim as to outweigh all his own common sense and all arguments. Of course a well person who will stay in bed a week or two will become somewhat debilitated for want of exercise, and when this is extended to months the most lamentable loss of power results. One case is recorded of a woman who threatened her husband that she would go to bed, if some unreasonable request were not granted, and stay there till it was. She did go to bed, and

the husband, who was a sailor, went off on a voyage, leaving her there. Obstinacy kept the woman in bed until the consequent weakness was enough to keep her. By and by the husband returned, and finding a wife rendered helpless by her own folly, cleared out again. The woman was by this time really too helpless to leave her bed, and would never have left it had not an energetic physician taken her case in hand, and despite her agonized entreaties, insisted upon making her walk between two stout women several hours each day, until the wasted muscles were gradually restored by use.

On the subject of imaginary or perverse invalidism, the Medical Gazette, of this city, makes some apt remarks. Though designed for professional readers, and calculated to point out to them the best modes of treating such cases in their practice, the article has so much which I think will prove of general interest that I quote it here:

"It has so long been the custom to regard woman as the 'weaker vessel,' to sympathize with her delicate organization, and to commiserate the sufferings which she and we consider inseparable from her sex, that it may seem heretical to dispute her claim to exceptional natural fragility; and yet, if we study the circumstances under which her invalidism is usually manifested, we can hardly fail to arrive at the conclusion, that if she were not possessed of almost more than masculine strength, her vital processes, instead of being merely perverted, would absolutely cease. * * *

"With the exception of the hereditary weakness derived from the mother's imprudence, and the somewhat injurious effect of crowded population in a large city, there is scarcely a cause of disease or physical discomfort which is not within the control of every woman, and nearly all her suffering is directly attributable to her persistent and monstrous violations of the plainest hygienic rules. The 'young girl of the period,' born with a sensitive nervous system (the result of the folly of two or three generations), having managed to survive a pampered infancy, and a diet in utter opposition to nature, with no worse result than the dyspepsia which characterizes her class, and with her temperament developed (?) by a course of absolute indulgence, until

any interference with her own sweet will causes a paroxysm of nervous, or so called 'hysterical' excitement, is launched into 'society,' destitute of that habit of self control which adds materially to the resiliency of the tissues against morbid influences. Regular, systematic exercise is unknown to her; fashion prescribes a costume which should be called upholstery rather than dress, and which aids in weakening still more her undeveloped muscles. Padded to the throat and swathed in furs during the day, she exposes herself to the bleak night air of winter with bared breast and arms; and after violent and exhausting efforts in the vitiated atmosphere of a ball room—where temporary strength is given by nervous excitement, not by muscular tenacity—she returns home near daybreak, having lost the most needed period of sleep, and surcharged her system with carbon, to languish through the following day, fretful and incapable of exertion until some fresh excitement furnishes an unnatural stimulus. Marriage makes no interruption in this routine. The mania for excitement continues; the hours which should be devoted to rest are passed in crowded rooms, where the ingenuity of Satan could devise no worse conditions for health; where, instead of the requisite allowance of 1,000 cubic feet of air to each individual, less than 100 are given, and even these unchanged; where, in addition to four or five hundred human beings, as many gas jets burn, each of which consumes as much oxygen as eight adult men; where, from exercise and heat, the excretion of carbonic acid and organic matter is increased, and panting lungs are forced to inhale these instead of pure oxygenating air.

"Is it a wonder that the victims of such a régime suffer from pains in head and back; that household duties are too heavy a tax upon their enfeebled frames; that they are incapable of fulfilling woman's mission of child bearing; or, if they have offspring upon whom their sins are visited in mental or physical degeneracy, that they cannot furnish nourishment to sustain the life they have bestowed?"

He who first popularized the phrase "hysteria" as indicative, not of a group of morbid manifestations arising from actual structural or functional lesions, but of fretful, petu-

lant, 'spoiled childishness,' inflicted an incalculable injury upon womankind. Seizing upon this apologetic name, a series of 'nervous' symptoms, proceeding from self-indulgence, or aroused by the slightest impediment to the gratification of every whim, are elevated to the dignity of disease, and the very condition which should call for reprehension is set forth as a claim on our sympathy.

"It may be that some medical practitioners have been led by frequent intercourse with such fair logicians to participate in their exculpatory delusion; or the fact that these self constituted valetudinarians furnish the most constant and lucrative *clientele* may have something to do with the matter; but, whichsoever reason be the true one, certain it is that too many of our brethren yield to temptation of some sort, and base their treatment on the one great principle that their patient must be 'humored.'

"We are sent for by Mrs. Hautevoleé; we find that lady languishing, supine, upon her couch, and set about investigating the pathology of her condition.

"The objective indications are: pasty complexion, tongue slightly furred, hands and feet cold, pulse not very strong, nutrition generally defective, no signs of any organic disease. Among the subjective symptoms we find a general sensation of fatigue and lassitude; no pain, but a 'distressed feeling' in the head, back, epigastrium, or wherever else her attention may be for the moment concentrated; habitual constipation; disinclination or incapacity for mental effort or bodily exertion; the noise made by the children is insupportable; contradiction 'makes her nervous.' The history of the case shows us that she takes no regular exercise, because she is 'so easily fatigued;' that her only open air achievement is carriage riding, generally with the windows of the vehicle closed; that her symptoms are usually confined to the area of her own home and the morning hours, subsiding later in the day, so that she can without difficulty stand three or four hours at a 'reception,' or dance from 11 P. M. to 3 A. M., at an evening entertainment. Now there is not a thinking man in our profession who does not know that if such a patient were to be reduced to poverty—forced to attend personally to her children, to do her

own housework, cook her own meals, and otherwise become absorbed in necessary occupations—her health would be improved if not entirely restored thereby; and yet nine times out of ten, in just such instances 'change of scene' and 'amusement' are prescribed, and the evil effects of this advice counteracted temporarily by the administration of stimulants and tonics.

"Surely no argument is needed to support the statement that if a woman has not strength to fulfill both her household duties and the demands of 'society,' the former alone should have the preference. If she cannot care for her own children because of her physical weakness, or nervous irriability, she is certainly unfitted to undergo the excitement and exhaustion of a fashionable routine of amusement. Our profession is one which should exercise an influence for good in the moral as well as the physical sphere, and it is saddening to see its sanction too frequently given to a violation of woman's noble (because natural) mission—to a neglect of her healthful duties as mother and wife, in favor of a course which only aggravates, in the long run, the conditions for which it offers a transient and fictitious relief. We should treat women as rational beings, not as nervous systems without a governing brain. We should teach them to use this governing power of the mind, and to fulfill the hygienic laws under which health is alone possible. Above all, in the class of cases which we have been considering, 'occupation' will be found a much surer means of cure than 'amusement.'"

It has been occasionally said of some persons that "they have no time to be sick," and there is often truth in the expression. A man may wear himself out by excessive work; but many persons are "sick," only because lazy. They need activity for mind and body. Let such take the hint, and their troubles will soon disappear. "Nothing to do" is a great curse, and wealth which induces laziness is not a blessing.

There are *some* real "nervous" ailments, however, and these I shall speak of in another chapter. The "pampering" system, however, is only an aggravation, even in these genuine cases of lack of nervous stamina.

CHAPTER VII.

PHYSICAL EXERCISE, HEALTHFUL AND HURTFUL.

THE importance of muscular exercises and invigorating, out-door activities has been year after year, insisted upon by writers on health and the public press. Americans, however, seem never to be able to do anything in moderation, and when they do adopt any recreation or exercise so completely overdo it as to destroy all, or nearly all, its benefits while incurring its evils in increased degree. Gymnastics, skating and base-ball are some examples of these manias. Good in their way, in proper times and limits, each was carried to excess during its hight of popularity, base-ball especially. Thousands are now suffering from injuries internal as well as external; some the direct consequences, and others the more remote ones arising from exposure when heated, etc. Doubtless those who were content with moderation were benefitted by the exercise, but I am speaking of the almost universal ignorant and excessive manner in which it was used.

The fact is, too much exercise is as bad, or worse, than too little. Moderation should be the rule and changes should never be made suddenly. At first the exercise should be but a trifle beyond the ordinary habits; this may be gradually increased from day to day, but never allowed to become overtasking. Regular exertion within easy range of your power, will increase that power more than the effort at any time to do a little beyond.

The Westminster Review, in the course of an article against too much physical exercise, observes: "Those who have gone through the severest training become, in the end, dull, listless, and stupid, subject to numerous diseases, and in many instances, the ultimate victims of gluttony and drunkenness. Their unnatural vigor seldom lasts more than five years. It was especially remarked by the Greeks, that no one who in boyhood won the prize in the Olympic games, ever distinguished himself afterward. The three years immediately preceding seventeen, are years of great mental

development, and nature cannot, at the same time, endure any severe taxing of the physical constitution. Prudence, therefore, especially at this critical period of life, must ever go hand in hand with vigor, for the evils of excess outweigh by far the evils of deficiency."

The absolute neglect of physical development in the past generation we see followed in this by habits of exercise which threaten to make us a people of athletes and cripples. Not content with a rational use of the gymnasium, under the supervision of a teacher versed in physiology, developing in unison the muscles and the intellect, as in the German universities, our youth aim each to be a Hercules, willing to be dunces if their arms and loins be strong. Hence the ball and cricket, and boat clubs; hence the huge dumbbells and Indian clubs, which strain and fatigue the muscles, and lay the foundation for many diseases of the limbs and internal organs. There was a time when hernia, or rupture, was principally confined to the laboring classes, among whom it is so common that it is safe to say that one in every fifth man you meet is affected with it in some degree; now this infirmity is increasing among the students, many of whom lay the foundation for a life-long disease in the ill-judged exercises of the so-called "manly sports." We are not all the same, either mentally or physically; and exercise, like food and study, must be graduated according to the power of the individual. This distinction is generally overlooked; and the puny boy emulates the strong, subjects himself to the same vigorous efforts, and finds himself with distorted joints, rupture, and incipient disease of the heart and blood vessels.

All physicians and physiologists are aware of the effects of rowing, as an exercise, on the heart and pulse. These effects have been recently carefully examined by Dr. Fraser of Edinburgh, by means of the "sphygmograph," an instrument invented in France, which produces a self-written record of the swellings and contractions of the arteries; the delicate movements of these vessels, which the finger cannot detect, are thus registered in a series of curves or waves, by a pencil on a strip of paper moved by clock-work. The "sphygmograms" of a crew of healthy persons before leav-

ing the boat-house, and immediately after its return, are very different. The tracings show clearly that an extremely large quantity of blood is, in rowing, circulated with great rapidity, a condition of the circulation essential for the continuance of prolonged and severe muscular exertion. The effect of such a condition upon persons suffering from, or liable to, functional, organic disease of the heart, can be easily conjectured. There can be no doubt that many incipient diseases of the heart and blood-vessels are rendered active and dangerous by the violent exercise of rowing, and that much discomfort, and premature death, are the result of this mania injudiciously and intemperately indulged in. As boat-crews do not, and cannot, here, submit themselves to "sphygmographical" examination, and thus enable the predisposed to heart-disease to retire in time to prevent further mischief, it may be a wholesome caution for the youthful oarsman to stop and consider, especially if violent exercise produces an uncomfortable feeling in the heart and lungs, whether he will indulge in anything more than a moderate pull. The effects of rowing on the circulation do not differ from those of many other forms of muscular exercise; it is the *violence* of such exercise, whether with the oar, the bat, or the Indian club, which is the dangerous element. While may be safe to row or play ball simply for amusement, it may be eminently dangerous to engage in a boat-race or a fatiguing ball-match.

The best exercise is that which gently stimulates the whole system. Walking and running are among the very best exercises for strengthening the muscles of the lower limbs, as well as promoting general vigor. In these simple things the preceding remarks are equally applicable. Pedestrianism is a pleasant and healthful recreation, but one not accustomed to walking much should begin with a short walk, and avoid on all occasions incurring downright exhaustion. Each day it is well to begin the walk with a moderate gait, which may be increased as spirits rise. The body should be held erectly though not in a stiff, constrained position, with eyes directed to some object in advance a trifle higher than the walker's head. Of course the eyes need not be set fixedly on any object, but this is

useful to observe occasionally to keep from unconsciously falling into, a stooping posture. Most pedestrians consider a cane or switch an essential item of their equipment, but its utility is questionable. Easy shoes should be worn, and on very long jaunts the application of common brown soap to the stockings will promote easy motion and prevent blistering. In practicing running, only a short distance should be done at first, commencing with a slow trot, and gradually increasing speed. It is not well to keep this up when breathing becomes difficult, but the pace should be gradually slackened until the runner resumes the walk. During all this time breathing should be done through the nostrils, and the mouth kept persistently closed. To "get out of wind" and pant and puff through a gaping mouth is only an injury. These running exercises can be carried on without interfering with ordinary occupations, by practicing them on the way to business, etc. In time greater speed and endurance will be attained. The pedestrian feats of "one hundred miles in one hundred consecutive hours," and like unnatural outrages on nature always do harm—often irreparable.

Rowing is a highly valuable exercise, but great care is essential, as the temptation is very strong to overdo. Not only should the practice of the first few days be very short and mild, but on all occasions the rower should at first use the oars slowly until he "gets warmed up," and then, if accustomed to the exercise, he may exert more force.

The swing is another important form of exercise. Of this, among the simplest and best of apparatus, Dr. Long says: "I wish to say a few words 'to whom it may concern,' on the use of the swing—one of the gymnastic exercises—as a preventive and cure of pulmonary diseases. I mean the suspending of the body by the hands by means of a strong rope or a chain fastened to a beam at one end, and at the other a stick three feet long convenient to grasp with the hands. The rope should be fastened to the center of the stick, which should hang six or eight inches above the head. Let a person grasp this stick, with the hands two or three feet apart, and swing very moderately at first—perhaps only bear the weight, if very weak—and gradually increase, as the muscles gain strength from the exercise, until it may

be freely used from three to five times daily. The connection of the arms with the body (with the exception of the clavicle with the sternum or breast bone) being a muscular attachment to the ribs, the effect of this exercise is to elevate the ribs and enlarge the chest; and, as nature allows no vacuum, the lungs expand to fill the cavity, increasing the volume of air—the natural purifier of the blood—and preventing congestion or the deposit of tuberculous matter. I have prescribed the above for all cases of hemorrhage of the lungs and threatened consumption for thirty-five years, and have been able to increase the measure of the chest from two to four inches within a few months, and always with good results. But especially as a preventive I would recommend this exercise. Let those who love life cultivate a well formed, capacious chest. The student, the merchant, the sedentary, the young of both sexes—aye, *all*—should have a swing upon which to stretch themselves daily; and I am morally certain, that if this were to be practiced by the rising generation, in a dress allowing a free and full development of the body, thousands, yes, tens of thousands would be saved from the ravages of that opprobrium medicorum, consumption."

In all exercises it seems that much of the benefit results from the pleasure of the person; so that mere mechanical evolutions, such as putting up dumb bells or swinging clubs, produce less benefit, even when not carried to excess, than the same amount of exertion in some less aimless way. There is a great deal in having some object, in addition to the mere desire for strength, as inspiration in exercising. Sawing wood may be good exercise; but the actual physical benefit is greater in the case of a person paid for it than where it is half grudgingly done "because it is good exercise." Another thing, exercise should be varied. To lift the extended arm from the side to a level with the shoulder once or twice, or a dozen times, requires scarcely a perceptible exertion; but continue this exercise for even five minutes, and a painful effort will be requisite to keep on. The muscles become exhausted and require rest. To keep any limb in one strained position is a severe task, because there is an uninterrupted tension on the muscles by which that

posture is maintained. The punishment, therefore, sometimes imposed in schools, of requiring a pupil to hold a book or even his hand for a length of time over his head, is an outrage against nature. Even to require one to stand still a long time is an unnatural punishment, and is liable to produce weakness of the extremities. Such inflictions are sometimes imposed thoughtlessly, but the injury is the same, even in several recorded instances to a fatal extent.

The Hartford Courant gives the following account of one inhuman and fatal outrage, committed by a woman school teacher in Connecticut: "The punishment occurred in one of the district schools in the town of Manchester, and the teacher who inflicted it is a young woman named Emerette Campbell. Among her scholars was a girl named Wheeler, aged about eight years, and this little girl, together with two others, was deficient in her geography lesson. There were certain questions which the child could not or did not answer; and Miss Campbell, believing this inability arose from willfulness, told the child to stand upon the floor of the schoolroom till the replies were given, adding that the punishment would be continued until the lesson was properly recited. The little girl did as she was bidden, and was kept upon the floor during a portion of the morning exercises, all through the noon recess, with the exception of a few moments allowed her to leave the room, aud, it is stated, all the afternoon; making in all nearly five hours. This punishment would have been more than most grown people could have endured; but for a child of eight years, and one of very nervous temperament at that, it was carrying the authority of the schoolroom altogether too far. The sequel proves this. When the little one returned to her parents that night she was in a high state of fever and excitement, and very soon the shock to her system resulted in a high brain fever, in which she lingered about forty-eight hours and died! During most of the time of her sickness she was delirious, and cried out constantly, in heart rending tones, 'Don't let her—don't let her!' referring all the time to the teacher, whom she seemed to imagine was following her."

There is one form of exercise which is, at all times and

under all circumstances, to be reprobated—running up stairs. Dr. W. W. Hall, whose views are generally to be depended upon, has fallen into the error of recommending this, as did no less an authority than Dr. Franklin. It is true, as they say, that a great deal of exercise is got in a concentrated form, but this concentration is not desirable. Any one who makes a practice of ascending long flights of stairs rapidly, even if only on ordinary occasions, will find himself injured by it; while a person who resorts to this plan for exercise will be apt to commit suicide thereby. The Cornish miners break down ultimately from failure of the action of the heart, produced by running up the ladders to go home. This proves more fatiguing and destructive than their entire day's work quarrying, by no means light work. In reality, going up stairs should be done with great deliberation; the slower the better. The habit of making a dash for the stairway, and rushing up as though about to storm a breastwork, is exceedingly bad. If the contrary plan, very slow ascent, is adopted the evils are avoided; and this is especially important to those whose breathing is at all difficult, or who have the slightest tendency to any trouble of the heart.

Speaking of the death of a celebrated Oxford boatman, the London Leader says: "Our best rowers and athletes almost invariably die of heart disease—and die at the very moment when the bodily system appears in superb order. Athletic science is a very Moloch, whose victims, were they told up, would frighten the nervous into the opposite extreme—that of not undergoing sufficient exertion to keep the physical system in good working order."

The mania for velocipedes during the few months it lasted, a few years ago, resulted in much injury. Not only was it a prolific cause of piles, but ruptures were frequent, and the tax on many of the muscles was such as they were never intended to bear, consequently they were strained. The principal tendency was to produce abnormal enlargemnnt of the muscles and of the heart; but several excellent authorities affirmed that a great variety of diseases of the heart could be ultimately produced by persistence in the exercise.

CHAPTER VIII.

USE AND ABUSE OF MEDICINE—DANGERS OF SELF-DOSING—INJURY DONE BY PATENT MEDICINES—SAFE RULES FOR PATIENTS.

PROBABLY if the use of medicine were entirely discontinued, the public, as a whole, would be benefited. Not that medicine is not in many cases, not only useful, but absolutely essential; but the harm done by its injudicious administration is vastly greater than all possible good accomplished by its appropriate use. The greatest harm is done by persons prescribing for themselves. It is much easier to swallow a few pills or a nauseous medicine than to make important changes in diet or habits of living, to conform with the laws of health. Indeed, taking medicine seems to be a real pleasure with many persons, and many value a physician's services only in proportion as he doses them.

Now, taking medicine into the system is an unnatural act. No medicine in the world has power to cure any disease, except by promoting the action of some part of our organism. In health, all the functions of the different organs are performed as was intended in their creation; and when they cease to act so, it is owing to some error or abuse on our part. Now, medicine will often stimulate an organ into activity or check excessive action; its permanent restoration can only be effected by removing the causes which produced its unnatural action or the obstruction to its natural functions. Otherwise, the effects of the medicine are but temporary, and the derangement or disease assumes severer form. Repeated resort to medicine in such cases at last causes the organ to act only under that stimulus, and its natural power is lost. Not only are *we* "creatures of habit," but many of our organs are so also.

Let us take a common example: Nothing is more common than the use of pills to induce action of the bowels. The constipating diet, want of exercise, or other producing causes, are rarely rectified, and the necessity of using pur-

gative medicines, to cause the bowels to act, becomes more frequent. Gradually the doses require to be increased in quantity and frequency, until at last powerful purgatives fail to cause any evacuation. Stoppage results, the person going perhaps for weeks without a passage from the bowels, until the accumulation has to be removed by a spoon or other mechanical device.

Besides the deaths resulting from stoppage, there are many caused by the destruction of the digestive powers, the result of excessive use of purgative medicines.

Sir Astley Cooper, the most celebrated English practitioner of the last generation, has left on record his opinion, that on the whole, more harm than good is done by medication. Since his day, however, physicians have become more skillful and cautious in the administration of medicines; but his assertion applies with even increased appropriateness to the *self-dosing* of the present day.

There are another class of medicines which also do much harm, namely, the bitters, tonics, and other preparations for "loss of appetite," for "invigorating the system," etc. In the proprietary compounds, the active element is almost invariably alcohol in some form, generally the cheapest, vilest spirits. The continued use of such preparations must establish a taste for liquor, and unquestionably confirms many persons in drinking habits. Aside from this, the digestion is really impaired, though stimulated for a time into apparent activity. The loss of appetite usually appears with the approach of warm weather, and, in most cases, merely indicates that less food is required. Confine eating to the quantity that is really relished, without any artificial stimulation, and the appetite will regulate itself. It is only in very peculiar cases that persons should eat when they do not desire food. Artificial appetite produced by ales, spirits, and spices, generally only clogs the system with unneeded and superfluous food.

Perhaps the most injury is done by the use of spirits and narcotics. All proprietary soothing syrups, nervines, and similar remedies, contain opium. Though temporarily successful in allaying pain, subduing "nervousness," or producing sleep, their use really aggravates the difficulty.

People are too apt to resort to them for trifling troubles; soon they find that they cannot sleep, or are fidgety, or nervous unless soothed (or rather, stupefied) by their favorite medicine. Larger and larger doses become necessary, until the nerves become completely unstrung; good, natural slumber is impossible; and the victim becomes weakened and miserable from want of rest, peculiarly susceptible to annoyance at trifling causes, and often a victim to nervous pains; while the reactions following the use of the medicine produce dullness, headache, loss of energy, and a general disgust of life and of everything else.

Specifics for various diseases often do harm because those using them, frequently, do not have the disease they think, and because no preparation for general use can suit all constitutions, to say nothing of the ignorance and carelessness with which these compounds are usually prepared. Many persons doctor themselves for the liver, when the matter is with the kidneys; thousands are swallowing remedies for consumption, while it is their digestion which is troubling them. Often, when they have the disease located rightly, their medication does harm, because the medicine either has no virtue whatever, or is unsuited to their individual case. But probably the greatest harm results from the patient's faith in the medicine leading him to neglect proper precautions regarding diet and other matters, without attention to which even the best medicine is often powerless. Or he may be trifling with a disease which requires prompt attention from the ablest medical skill. He may really be dosing himself into his grave, while the temporary stimulation of the alcohol, used as a preservative in nearly all patent medicines, leads him, until perhaps too late, to believe he is steadily recovering.

There is one very important consideration in regard to "patent" medicines, which is frequently lost sight of by their users: the patient has nothing to depend on, usually, but the bare assertion of the vender as to their efficacy, the ingredients being almost always kept secret. Such preparations are highly dangerous in some cases; and in order to include as large a portion of the public as possible among the purchasers, it is claimed for them that they will cure

long lists of diseases, of which many are really quite contradictory in their character, and require exactly contradictory modes of treatment from others in the list. Again, sometimes proprietary preparations claim to be composed of ingredients of which they actually contain not a particle; so that, even were the article mentioned a suitable medicine in a given case, there would still be no benefit derivable from the purported compound of it.

There are many symptoms common to different diseases; in several the symptoms are so near alike as to require the utmost skill to determine which disease their presence indicates; yet persons recklessly take medicines which are reported to remove those symptoms, though the different diseases, to both of which they are common, may require directly opposite treatment. Another thing, "symptoms" are often processes of nature for relieving the system, to check which is often exceedingly dangerous.

The practical lesson to be drawn from all this is, that where the faithful attention to the laws of health are insufficient to preserve you from illness, the best thing is to consult some physician in your own neighborhood, preferably your own family doctor, and don't pester him into giving you medicine if he does not wish to. Above all things, don't balk his treatment by taking other medicines on the sly. Beware of all "doctors" advertising themselves as the possessors of superior skill, or remedies unknown to the general profession. It is a safe rule *never* to consult an advertising physician,* and never to trust your case to a stranger who will treat you by mail. If your case really requires the services of another than your family physician, I believe he will advise you conscientiously and wisely to whom to apply. Such cases *do* occur; but the advertisers who desire cases where "all others have failed" are the last ones to trust.

* To this rule I mean *no* exceptions. The vast majority of advertising "doctors" have really no just claim to the title—are ignorant pretenders, unprincipled scoundrels, who care only to extort money, and, to do so, will exaggerate your case, tamper with it till your funds are exhausted, or even treat you for months for a disease which you have not got, and which they know, or ought to know if possessing a particle of medical knowledge, that you have not got.

CHAPTER IX.

CAUSES, PREVENTION AND CURE OF DYSPEPSIA.

DYSPEPSIA is one of the commonest forms of debility, and at the same time one of the most disastrous in its results. It consists in the inability to convert the food into nourishment; is due principally to a disordered or enfeebled state of the stomach, but may be produced by the failure of any organ connected with the digestive process to perform its functions properly. The preparatory process, to which food requires to be subjected for proper digestion, commences in the mouth. Thorough mastication is necessary, not only to reduce the food to a proper consistency which can be readily and thoroughly acted on in the stomach, but also that it may be mixed with the saliva, which is an important element in the digestive process. This important point is too frequently overlooked, especially by the very persons in whom it is most necessary. Dyspeptics are usually rapid, impetuous feeders; literary men and persons of highly nervous temperament, seldom eat slowly and composedly. Many eat too rapidly without being aware of it; Americans being especially notorious for this unhealthful haste.

A noted writer has remarked that the moment a man becomes aware that he has a stomach, something ails it—or, that digestion should progress so insensibly as to produce no feeling. The stomach possesses considerable sensitiveness, designed, doubtless, to warn us of any tampering with it. Yet we constantly disregard these warnings, persist in overloading it, keeping it often without rest, by eating irregularly, and giving it improper articles to work upon. Then when it complains we give "dinner pills," purgatives, or stimulants. These may hush its complaints temporarily, but at the expense of weakening effects.

It frequently happens that the first symptoms of indigestion create little apprehension. The stomach, like other organs, will endure some tampering with; the horrors of dyspepsia do not come all at once. The transgressor by

and by accepts the slight pains and disagreeable sensations as the inevitable fate of human nature, rather than the warning symptoms of approaching disorders. Many young people lay up for themselves the seeds of dyspepsia, with but slight *present* indications, which will hasten the giving out of their powers in later life.

As all parts of the body are dependent, for nourishment, on the stomach, it is not strange that dyspepsia produces a vast number of derangements, differing greatly from each other. Dyspepsia will aggravate, may produce, consumption. Persons frequently suppose themselves consumptive, are even treated for that disease, when the real location of their trouble is in the digestion. In severe forms of dyspepsia the action of the heart becomes seriously deranged, and many persons suppose themselves suffering from chronic heart disease, when really it is only dyspepsia interfering with the proper functional action of the heart. This is serious enough, but the digestion is what must be looked to for a cure. Dyspepsia exerts a pernicious influence upon the mental faculties, producing low spirits, morbid feelings and impulses, and hypochondriasis.

Although so prevalent a disorder, popular notions concerning dyspepsia are extremely vague. Many suppose that pain, is the invariable accompaniment of all cases of indigestion, and if they can eat and drink, and are free from bodily inconvenience, that they cannot be suffering from any disturbance of the digestive function, although an experienced observer would have no difficulty, oftentimes, in tracing their extraordinary symptoms to such a cause, remotely. The most aggravated forms of dyspepsia—I mean, where mental delusions prevail—are often characterized, by absolute freedom from all pain. In some of the most alarming forms of hypochondriasis, pain forms no feature in the complaint. Exalted intellects, in all ages, have suffered greatly from this distressing malady, and we gather from their lives and writings, sufficient to warrant such a conclusion. The celebrated Dr. Johnson was a great victim to dyspepsia, but he no doubt contributed largely to the predisposition, which high mental culture invariably induces through his enormous appetite and gross feeding.

Alexander Pope's singular temper, beyond question, was ascribable to this cause; it rendered him the most peevish and disagreeable companion. All great satirists, too, who have so unmercifully derided the follies of their fellow man, in by-gone times, may have delineated the short-comings of their brother mortals with increased acerbity, when their own feelings were exasperated by a paroxysm of dyspepsia. Persons afflicted with dyspepsia, although their bodily and mental serenity are so greatly disturbed by this infirmity, frequently attain considerable longevity.

Dyspepsia is characterized by so many and such varied sypmtoms, that any one, unacquainted with the real truth of the matter, would positively suppose that mythology was not such a fable as we are taught to believe it, and that there is some little truth in the reputed existence of Pandora, and the opening of that dread box, when she visited mankind with such a category of evils.

Dyspepsia may commonly be known by some one or other of the following symptoms—many of these are so opposite as to arrest our curiosity: A sense of weight and oppression at the pit of the stomach after taking a full meal; flatulence; foul breath; drowsiness, and an indisposition for any exertion of mind or body; thirst; flushed face (dyspeptic flush); a feverish state of the general surface; loss of appetite; a morbid craving for food; furred tongue; lowness of spirits; thirst after meals; nausea; pyrosis; constipation; costiveness; diarrhœa; the existence of piles, or hemorrhoids; syncope, or faintness; hysteria; epilepsy; palpitation of the heart; irregular pulse; pains in the side (right or left, or both); pain in the shoulder, or between the shoulder blades; head-ache; disordered memory; groundless fears; apprehensions of approaching dissolution; confusion of ideas; amaurosis; disturbed sleep; nightmare; somnambulism; irritability of temper; cutaneous eruptions; and mental halucinations. That well-known disease, St. Vitus' dance, depends on the vitiated secretions of the bowels.

Among a dozen dyspeptics, no two will have the same predominant symptoms, either in nature or locality; and as these persons differ further in age, sex, temperament, con-

stitution, occupation, and habits of mind and body, it is the hight of absurdity to treat any two dyspeptics precisely alike; hence the failure to cure in many curable cases. Dyspeptics of high mental power, and of a bilious temperament, are subject to sick headache; those who are fat and phlegmatic have constipation and cold feet; while the thin and nervous have horrible neuralgies, which make of life a continued martyrdom, or they are abandoned to forebodings so gloomy, and even fearful sometimes, as to eat out all the joy of life, and make death a longed-for event. Some dyspeptics are wonderfully forgetful; others have such an irritability of temper as to render companionship with them, even for a few hours, painful, while there is such a remarkable incapacity of mental concentration, of fixedness of purpose, that it is impossible to secure any connected effort for recovery.

There are some general principles of cure applicable to all, and which will seldom fail of high advantages. The entire body should be washed once a week with soap, hot water, and a stiff brush. Wear woolen next the skin the year round, during the daytime only. By means of ripe fruits and berries, coarse bread, and other coarse food, keep the bowels acting freely once in every twenty-four hours. Under all circumstances, keep the feet always clean, dry, and warm. It is most indispensable to have the fullest supply of sound, regular, connected, and refreshing sleep in a clean, light, well aired chamber, with windows facing the sun. Spend two or three hours of every forenoon, and one or two of every afternoon, rain or shine, in the open air, in some form of interesting, exhilarating, and unwearying exercise—walking, with a cheering and entertaining companion, is the very best. Eat at regular times, and always slowly. That food is best for each which is most relished, and is followed by the least discomfort. What may have benefited or injured one is no rule for another. This last mentioned item is of universal application. Take but a teacupful of any kind of drink at one meal, and let that be warm. Let your diet consist mainly of coarse bread of corn, rye, or wheat; ripe, fresh fruits and berries, in their natural state; and fresh lean meats, broiled or roasted,

as meat is easier of digestion than vegetables, which should be used only moderately in confirmed dyspepsia. Milk, gravies, pastries, heavy hot bread, farina, starches, and greasy food in general, aggravate dyspepsia by their constipating tendencies. It is better to eat at regular times as often as hungry, but so little at once as to occasion no discomfort whatever. Constantly aim to divert the mind from the bodily condition, in pleasant ways; this is half the cure in many cases.

Confirmed dyspepsia is a very troublesome and difficult disease to overcome; therefore, the wise course is to avoid it, or at least take measures for correcting it in its earliest stages. While there are cases where medicine may be useful if administered with skill, it is never safe for the patient to attempt to prescribe medicine for himself, or to trust to the prescriptions of nonprofessional friends, or the representations of medicine venders. There is no proprietary preparation which is a cure for dyspepsia, or which is safe to take. Even the simplest and least dangerous are mere trash, while most exert an injurious influence, though sometimes temporarily lulling some of the symptoms. Hints in other chapters, together with what is above written, will, I think, serve as a safe guide for self-treatment. Due attention to exercise, ventilation, bathing, and other laws of health, are the best and safest modes of prevention and cure.

On the subject of drinking cold water during meals, one of the most prolific causes of dyspepsia, the Herald of Health says: "Whoever, contrary to his usual custom, will turn down his glass at the beginning of a meal, and not make use of it till the close, may perceive that a great many consequences flow from so simple an action. In the first place, the only aid to mastication and deglutition, apart from the teeth and tongue, will be the saliva, of which, from long disuse, there probably will not be the desired abundance. The time occupied in disposing of a mouthful of food will thus be prolonged, and the character of the food make a greater impression on the palate. The stomach will not be treated to a cataract of half drowned morsels, but at proper intervals to well prepared material for digestion. There will be no haste, no bolting; the tendency to stuff and over-

load the stomach will be checked, or fairly overcome; at least there will be no leisure to consider whether one is eating too much. It is needless to add, that these changes would be in the interest of good breeding at the table, there being few things more repulsive than the sight of a person who darts at his food, gulps it down in an instant, and, before it is fairly deposited in his mouth, has caught up more with which to pursue it.

"A little reflection will convince us how narrow must have been the distribution of animal life on this globe, if the habit of which I complain had been a provision of nature for elephants, buffaloes, giraffes, all the deer kind, the birds, and even the beasts of prey. The crocodile and the hippopotamus would have been enviable to all their unamphibious brethren; while the area devoid of lakes or streams would have been so deserted, that man could with difficulty have settled upon it in his savage state. As it is, the herds which roam the trackless wilds of Africa are content to slake their thirst at the close of the day, after a wandering of many miles away from the fountain, and a tedious return to its life-giving waters. Their enemy, the hunter, is formidable accordfng to his powers of endurance against thirst in the desert."

In some of the aggravated forms of dyspepsia, the optic nerve is so far affected as to produce several kinds of partial cæcity (day blindness and night blindness). Double vision is only a variety of the same affection, and is not unfrequently traceable to a dyspeptic origin. Change of air, and sometimes even of climate, in addition to other apposite treatment, will in some instances be absolutely necessary, in order to effect a permanent restoration to health. All such cases demand the promptest and most careful diagnosis. Drunkards are very subject to this peculiarity of vision. Many other affections of the eye may be traced to depraved nutrition, and premature blindness is a common symptom with inveterate dyspeptics.

CHAPTER X.

NERVOUS DISORDERS—"WEAK NERVES," ETC.

THERE is nothing so difficult to define in words, and yet so thoroughly understood by the sufferer, as that state of misery called nervousness. This is a condition to which men, the most robust originally, may be reduced by anything which weakens the brain and other sources of nervous power. Dissipation; excess of wine, spirits, or tobacco; too much work, but oftener too little; and accidental disease of various kinds, are generally the causes of the nervousness of men. The same causes will undoubtedly produce the same effect in women; but their nervousness, though much more frequent than that of men, is generally to be traced to a different source.

For the development of this disorder in man, some extraordinary cause seems necessary. In woman, on the contrary, the malady would appear to be almost inherent, so common and ready is its manifestation. Nervousness, though a disease, is in fact the normal state of modern women, hardly one of whom can claim the possession of health. Notwithstanding that nervousness, to a greater or less degree, is almost universal among womankind, it is not in any respect a necessary result of their organization. There is no natural reason why woman should be more afflicted in this respect than man. On the contrary, there seems to be a very good reason why she should not be; for her life exposes her less to the gross debauchery and other excesses which are the common causes of the nervousness of men.

The fact is, however, that women do suffer much more than those of the opposite sex, and the reason is obvious. They are feebler—not by nature, but by art; and physical, moral, and intellectual weakness is the great predisposing cause of nervousness. With the notion, carefully inculcated for ages by her master man, for reasons of his own, that she belongs to the weaker sex, woman's education has been conducted in conformity, and care taken that she should

never dispute with her lord the claim to power. Her muscles have thus been allowed, by a calculating neglect of exercise, to dwindle away or lose themselves in layers of ineffective fat, and her brain and nerves, designedly, so enervated and unstrung as to be incapable of acting in harmony with the original strength and independence of her nature. She has been made delicate of flesh and unresisting in mind, that she might be pleasing to the touch and complacent to the humors of her master.

It is not only the faulty physical and intellectual education which has deprived woman of her natural robustness, and thus rendered her nerves weak and morbidly impressible, but her sensibility has been also directly cultivated to a degree of acuteness which is fatal to health. At the earliest period the female child is reminded of its delicacy, and prevented from doing a thousand things which are allowed to a brother, on the ground that they are wrong for the one, though right for the other. Emotional indulgence is encouraged in the girl while rebuked in the boy. Fear of the dark, fright at a mouse, a sudden noise, or any harmless thing, is deemed becoming in the former, while it is considered disgraceful in the latter. Tears are supposed to adorn the face of the future woman, while they are thought stains upon that of the embryo man. The mother can never get over the idea that she and her daughter belong to a weaker sex, and the female propriety she inculcates is a feebleness of which only debility is capable and strength would be ashamed. An excessively acute sensibility is thus engendered in woman from the earliest age, and she becomes an easy victim to nervousness or nervous diseases, the horrors of which are thus described by an intelligent female writer: "There are many of these affections which take on a definite form, producing violent pain in a particular spot, or some special local derangement; but the majority assume the most protean forms, simulating all manner of organic diseases, but without producing any perceptible organic change. There is no kind of malady which the nervous person will not imagine herself to have—scarcely any which the physician may not be induced to suspect, from the presence of diagnostic symptoms, till the non-appearance of

certain results proves that it is *only nervous*. But is the suffering any the less real because the victim of nervous disease lives on, and the body preserves to some extent its integrity? All the nameless horrors and the tortures of morbid sensation are terrible realities to the sufferer; and when, after trying in vain to obtain relief from doctor after doctor, and resorting to every new system or to every quack till the sympathy of friends is exhausted and hope is gone, she finds nothing left but to endure existence till she dies, it is mockery to tell her she is only nervous."

Such a frightful condition of mind and body it is unquestionably better to avoid, by the certain preventives of the early formation of good habits and a rational education, than deliberately to incur with the probability of its settling into incurable disease. If parents could get rid of the notion that their daughters necessarily belong to a weaker sex, and bring them up with the robustness of their sturdy sons, our women would have less reason to complain of the wretchedness of nervousness.

Some women and girls affect an extreme nervous susceptibility they do not really possess. The little frights, hysterics, and the like manifestations, when assumed, are not only ridiculous, but may result in confirmed habits. The way to cure nervousness is to take plenty of out-door exercise; cultivate cheerfulness; engage in interesting, exhilarating occupations; get plenty of sleep; retire early; avoid indigestible food, morbidly exciting reading, and all unnatural excitements. The use of medicine in cases of nervous excitability is almost always a positive aggravation of the trouble, though sometimes, for a while, apparently soothing. It will readily be perceived that "bitters" and all alcoholic preparations only aggravate the disorder. Nervousness may be due partly to improper food; for the nerves require nourishment as well as any other part of the system. The excess of sugar, fat, and other carbonaceous food, often used by those who are, or fancy themselves, afflicted with nervousness, is injurious. They should avoid confectionery, cake, and pastry, and eat only plain, nourishing, though not necessarily disagreeable food. I again say, that a liberal use of pure fresh milk as a part of the diet of chil-

dren will be likely to furnish them with a due portion of nerve power, which can the more easily be sustained as they grow up. Children are sometimes peevish and fretful from actual lack of nervous vigor; not always from perverseness of disposition.

Some persons are more finely organized than others—more emotional, capable of more exquisite feelings, both of joy and sorrow; and excess of feeling inany direction is apt to be followed by reaction in the opposite direction. This fineness of organization is not a defect unless it is permitted to become a tormentor to its possessor—sporting with him; now lifting him to hights of delight, and then plunging him into depths of despair. When this happens he is apt to become irritable and nervous. It is because he feels too much and acts too little. Let him work off some of this superfluous feeling by engaging in enterprises or labors calculated to benefit or add to the happiness of others, and see that the bodily powers are exercised as well as the mental, and he will soon be in a more healthful state of mind.

CHAPTER XI.

"UNBENDING THE BOW"—THE NECESSITY OF REST AND RECREATION.

A BOW continually bent loses its elasticity and power. So of the human mind and body. Judiciously managed, a man can get a good deal of work from brain or body; but if he attempts to make either work ceaselessly, or repeatedly to exhaustion, he will defeat his own object. Unless he takes proper rest he will wear out—he must "unbend the bow." There are several ways of doing this: First, varied employment. If a man hoes cabbages all day for many days, and does nothing else, he will gradually become more and more identified with his occupation—more and more a cabbage head. And it is equally true of any

other monotonous calling. The unused faculties or muscles lose their vigor, and, for want of the proper "unbending," the very faculties used will lose their power too. This is better seen in mental pursuits. A clergyman who does not sometimes engage in studies or recreations diverting his attention from subjects immediately connected with his preaching, will soon find himself losing the power of making good sermons—of thinking clearly and logically. A speculator thinking continually of stocks and the fluctuations of the market, by and by loses his perception in such matters, and acts foolishly or insanely in his operations.

There should always be a due relation between the labor of body and mind. Students and professional men are benefited by a little garden digging, wood sawing, or other manual labor; and it is probable that a little mental exertion is beneficial to those whose labors are entirely muscular. The longest lived are, as a rule, not among those working the hardest physically.

Play is often rest. Did you never see boys after a hard day's work in the cornfield play tag, or ball, or some game really requiring considerable exertion, and yet be less tired than when they commenced? It is not merely changing the particular muscles used, for no such relief will be experienced by sawing wood after exercising in a treadmill. It is the "play" which does the good, which brightens the spirits, arouses pleasant thought, and prepares the boy for sound sleep, and the better performance of his duties on the morrow. While boys, in cities especially, may devote too much time to mere amusement, and so lose much of its relish, I believe there is no age at which some play is not beneficial. There are many business men who grudge any time devoted to their families. They cannot take notice of the children, because they are fagged out with the labors and cares of the day, and spend the evening reading the paper, going over accounts, pondering on the transactions just completed, and planning those for the next day. These are not among the most successful merchants. In the biographies of the merchant princes, how frequently we note how part of their time is devoted to their children's amusement, and the relaxation of society!

Certain books for the young tell of youths whose whole spare time, including midnight hours and all the hours they could steal from sleep before sunrise, was devoted to study I am afraid any youth, existing anywhere except in these authors' imaginations, would be paying pretty dear for his whistle—and fail to gain his whistle after all. There is much time, which most of us possess, which might be healthfully and profitably devoted to the acquisition of useful knowledge; but no one can follow the example of these supposititious cases without injury to health, and he cannot learn as much as in less time more appropriately chosen. To those working all day, evening may be the only time they can have for study, and moderate study at that time need not be injurious. The great test is one's own feelings; real weariness is an indication that you need rest.

If we work when exhausted, not only is restoration hindered, but the labor tells on us with multiplied force. We are exhausted and need rest; instead of rest we get more work; and in this condition we may remain all our lives, doing less than we could if we rested properly, while that lessened amount of work does us more injury than much more would if we were properly prepared for it by intervening rest.

Much is said of the overtasking of the minds of authors, editors, clergymen, and those in kindred professions, and references are made to "burning the candle at both ends," wearing themselves out, and the like. It is not among those who use their brains professionally that the greatest strain and the greatest waste of brain power are always found. Trained to it, devoting certain hours to it and the rest to relaxation, coming fresh again to their duties, these men frequently perform a surprising amount of work without excessive or painful exertion.

An astronomer will make calculations involving intense mental labor and application, with less fatigue to the brain than many a merchant experiences in trying to guess whether cotton will rise or fall in price, or a farmer in wondering if the bugs will get at his cucumber vines. It is *worry* that does the mischief generally, and more farmers than editors, in proportion to their numbers, go insane. When

thinking becomes painful the mischief is doing. Ceaseless thought on any subject, the more trifling often the sooner, will weaken the brain. One whose thoughts dwell painfully and against his will upon any subject is a monomaniac, and he must break himself of the habit by bringing other things—amusements, duties, or *something*—to wean his thoughts into other channels.

Sleep, the greatest of physical forms of rest, is sufficiently important for a separate chapter.

It seems important, for the health of mind and body, that not only should each day have its due portion devoted to rest, but that occasional breaks should occur in the routine of our lives. Aside from all religious claims, it seems proved by experience, that one day in seven devoted to rest, change of thought, and the forgetting of business, gives vigor to mind and body. So a few weeks' vacation, change of scene and occupations, in some cases pure idleness, in others muscular exertion, in still others the cultivation of the higher faculties—these, chosen to suit each individual, seem to be beneficial.

The plea is sometimes made that it is impossible to avoid the overtasking of body and mind in the competitions of business. This is, I think, the direct opposite of the truth. For a little while one may stand the ordeal, and perhaps feel it but slightly; but many such have broken down in the prime of life, when just on the point, perhaps, of the accomplishment of their plans.

Business men need to forget their responsibilities once in a while, that they may retain clearness, vigor, and health of mind, the better to attend to them. There are, of course, some persons who so rarely have a thought, so seldom feel any responsibility, or an interest in their duties, or a purpose of any importance in life—who, indeed, consider life an aimless, a passive state of existence—that I hope they will not apply this chapter to their own cases, and attempt to quench the faint spark of brain power they have. Neither is it intended for those who seek no nobler or higher object in life than mere pleasure. A little work, mental or physical, would do them good.

CHAPTER XII.

OUR PASSIONS AND EMOTIONS—INFLUENCE OF THE MIND ON THE BODY AND ITS ORGANS—NECESSITY OF CONTROL.

THE influence of our passions and emotions, of every kind, is often so great upon our physical system and bodily functions, that their proper regulation is of the utmost importance. So regulated, they are all serviceable to us according as occasion may require their exercise; but they must always be kept under control; when the *power* to restrain them is lost, the individual is at their mercy. Fear may be a good adviser if it is not our master, and so of other passions. Each individual has constitutional peculiarities of disposition, and in each the passions are differently proportioned. Still, a vast deal depends on cultivation, especially in the youug; and for this reason the utmost care should be taken never to stimulate in a young child anger, fear, or any other passion which may seem puny and amusing at the time, but will under such tuition strengthen beyond all calculation with his growth.

The vascular and nervous systems are perpetually under the influence of the mental emotions. What palpitations and tremors are every morning excited by the postman's rap, when we are in anxious expectation of intelligence from absent friends! How often are we hardly able to break the seal of important letters! The effects of the mind on the circulation of the blood were early observed; instance the detection of Antiochus' passion for Stratonia by the pulse. But it is not on the heart and large vessels only that mental emotions operate; the minutest capillaries feel their influence. Let the idea of shame cross the imagination of sensibility, and instantaneously the capillaries of the cheek are gorged with blood. Let the emotion be changed to fear; quickly the lily usurps the rose, and the vessels of the face are blanched and bloodless.

We are not able to explain how the mind acts upon the body, but we know it does act upon it powerfully. His

tory informs us of a Roman lady who fell suddenly dead of joy upon meeting her son, who she supposed had fallen in one of the battles of Hannibal. A Jew in France came by night over a dangerous passage on a plank, that lay over a brook, without harm; the next day, on viewing the perilous situation he had been in, he fell down dead.

Anger, grief, and fear have all been known to destroy life. The imagination, acting through the medium of faith and hope, has had unbounded influence over human diseases. When the physician has been believed to possess superior skill, the efficacy of his prescription is exceedingly advanced by the patient's confidence in that knowledge of the prescriber. This truth has been verified from the days of Hippocrates to the present time. During the French Revolution and the Reign of Terror, it has been remarked that diseases of the heart were extremely common, produced, unquestionably, by that constant state of agitation and alarm which seized upon every mind. Corvisart and Burns, as well as many ancient writers, have thrown much light on these subjects, to wit, the influence of the passions upon the body.

"Passions are the elements of life," not to be annihilated, but governed; and if they get the reins, like Phœbus driving the chariot of the sun, they will soon set the world on fire, and dig an early grave, as they often have, for many of the brightest gems in society.

There is one thing which may deserve mention in this connection—early love. Marriage before the system is fully developed is known to exert an injurious influence; and indulgences which are injurious in later years are still more injurious before maturity. But even a pure love may be injurious; for, however free from sensuality, its tendency is to develop the sexual instinct, and this development should *not* be hastened; if it *is*, it will prove a temptation, which may lead to too early a marriage, or to an injudicious one, or possibly to habits which will undermine the health.

I shall have more to say hereafter of the evils of books designed to stimulate this passion, and of the results of indulgence. It is the *innocent* love I referred to above. Even before children have the slightest wish for "beaux"

or "sweethearts," parents, nurses, and others, lay the foundation of premature love by their talk to and before them. They are made to kiss one another, asked how they would like one another for lovers, and an endless amount of other nonsense, which may annoy a child, but will, perhaps unconsciously to himself, set his mind in that direction, and, once started, stimulation is very easy. The evil is not that children are fond of one another, but that this fondness is made to assume a form unsuited to their years, by such injudicious action as I have spoken of—a form not natural in early years. Children's loves should be nothing more than such as they might properly feel toward their parents, or toward playmates of their own sex. Improper food often stimulates the excessive or premature development of amativeness. Rich gravies, pastries, confectionery, spices, and all heating food have this tendency. Fondling by strangers, even where there is not the slightest infringement of propriety, may sometimes have a bad effect, though without any intention beyond innocent petting.

CHAPTER XIII.

INFLUENCE OF STIMULANTS, ETC.

EXAMPLES of the debilitating effects of alcohol on the human system are too numerous at every hand to require arguments to prove such effects. The tendency of alcohol, in whatever form it may be taken, is to weaken mind and body. The evil may be vastly increased by the almost universal drugging of wines and liquors; but the influence I have spoken of exists in alcoholic preparations of absolute purity. In all cases and under all circumstances, the effect of alcohol (and alcohol is the "life" of every fermented or distilled beverage) is to first produce an unnatural, unhealthful exhilaration, or fever, followed by the reaction which follows all fever, and the accompanying depression and exhaustion. This is *always* the effect,

though in degree varying with the quantity taken and the constitution of the person. A man who takes his glass of port at dinner may not perceive any result beyond its pleasant taste, for the exhilaration and reaction are slight. The man who gets dead drunk *feels* quite differently; but the actual physical phenomena are identical, except the excessive loading of the stomach may cause the rejection of the liquor, in which case the action ceases. In a word, alcohol is a stimulant, and this is where the danger lies to the most moderate drinker. Though so slight as even to be imperceptible to himself, there is the exhilaration and reaction every time he uses the liquor. The tendency of this is to lower the tone of his system; and unless his constitution is strong, and his system sufficiently vigorous to resist this action, his health and the action of the bodily organs will be impaired, while increased doses of the stimulants will be required to produce the accustomed exhilaration. A man who depends on stimulation to keep him "all right" and feeling well, will soon be apt to reach a stage where he will be constantly "out of sorts." The system will become so much depressed, that no stimulation will suffice to bring it up even temporarily.

It is well for people to understand the real nature of alcohol; for the dependence on it for improving digestion, invigorating the feeble, or protecting against cold or hardship, has been proved, time and time again, to be fallacious. The only possible aid to digestion it can ever afford is to add to the savoriness of a meal; but this is counterbalanced by its inducing a dependence on stimulants, which will eventually lose their effect. So far from being a protection against cold, it has been found, that of two persons exposed to the same cold, one who uses no liquor will endure the exposure with less risk and less discomfort than the liquor user. As a means of prolonging life or sustaining the strength for any length of time, in cases of consumption or debilitation of any kind, alcohol has proved worthless. Many of the ablest physicians assert that their experience has proved a dependence on alcohol, in all such cases, to only hasten dissolution. Sometimes temporary relief from particular symptoms may be obtained by its use.

and for this relief from severe pain its use may be desirable, even at the expense of hastening death.

Professor Yeomans, of New York, says: "It has been demonstrated that alcoholic drinks prevent the natural changes going on in the blood, and obstruct the nutritive and reparative functions." Dr. Worthington Hooker, of New Haven, says in his prize essay of 1857, that he believes the peculiar form of typhus fever prevalent some years ago, and which under alcoholic medicines proved very fatal, was in reality a disease produced by the use of stimulants. Let two starving men have nothing but alcohol and water, and let one drink pure water, and the other alcohol and water, and the water drinker will live the longest. The experiment has been tried accidentally on man—intentionally on animals.

Alcohol is a stimulant, and no stimulant is ever safe to use, except as any other powerful and dangerous medicine is to be used, in extreme cases and by able professional advice. The little benefit ever to be derived from it is never obtained by those who take it on their *own* "prescription," or by the advice of some "friend." There is one circumstance under which its use by a physician is proper; when the life forces are so depressed, that some powerful agent is requisite to goad them into temporary activity, that time may be gained. There is always reaction, and if no other means of restoration were used at the same time no good would be effected; dissolution would only be hastened. But if, in this time of revival of the energies, *nourishment* can be administered which the *stimulation* will enable the system to assimilate, the reaction of the alcohol may possibly be overcome, and the good effects of the nourishment overbalance the evil tendency of the alcohol. This is a safe expedient only where the system is too far reduced to use the nourishment without stimulation; where the system is strong enough to do this—in *all* cases where the patient is able to prescribe for himself—there is no need of the stimulant, and it does only harm.

Dr. Albert J. Bellows says: "I have sat by the bedside and watching the sinking pulse, and fearing lest nature might not be able to carry the load, have put in the goad,

and in three minutes have felt the circulation rise; but in a few minutes more it would sink again, and the stimulant must be renewed, or it would sink lower than before. By carefully watching and spurring, I have kept up the heat and circulation till a little nourishment could be digested and perhaps the patient saved. But this is all the use I ever made of alcohol as a medicine."

It seems rather a hopeless task to attempt uprooting so universal a vice as the use of tobacco. It is probable that the warfare against this drug is sometimes carried to excess. That the oil of tobacco is a deadly poison is beyond doubt; that, used in large quantities, tobacco itself will cause lingering death, as well as in many cases cause heart disease and other severe maladies. When the smoker is a full grown man of hardy constitution, and not more than ordinarily susceptible to its influence, tobacco in very small quantities is not perhaps more of a poison than the system can by practice endure. That it is ever *beneficial* there seems no reasonable ground for believing. That it is as a general rule injurious is conceded, even, by smokers themselves, who often detect its pernicious influence in their own cases, though they may lack the energy to break off the habit. To many constitutions it is peculiarly injurious, even in the smallest quantities.

Whatever pleas may be put forth in extenuation of its use by adults, there can be no question of its serious effects upon boys and young men. Before the body is fully matured, tobacco is peculiarly injurious, and the ability to resist its influence is particularly weak. Upon all persons not fully matured, tobacco tends to check growth and physical development by impairing nutrition. There seems to be a strong belief, among those whose opinions deserve to have great weight, that tobacco also prevents as full and vigorous a mental development as the person would attain without its use. That even in adult smokers there is a tendency to dreaminess and mental indolence, seems to have some show of truth. That tobacco sometimes proves a solace in solitude, or a promoter of sociability, is unquestionable, and in moderation may not prove dangerously injurious to some constitutions, and this is about all that

can be fairly said in its favor, while the habit almost inevitably becomes an excess, and the *immoderate* use of tobacco is, beyond all reasonable question, always pernicious and sometimes fatal. So many have a tendency toward diseases which are developed and speeded by its use, that it is hazardous for any one to adopt it; while, even in what would be innoxious quantities to a matured man, it is surely and seriously injurious to all who have not attained their full growth. Boys just outgrowing their "teens," and anxious to be thought men, are seriously risking their manhood by this "manly" practice. After all, it is not so inconsistent a proceeding as it might at first seem for a smoking father to interdict the use of tobacco by his growing sons, though it might be still better if he could set them the example of abstinence.

Of late years a beverage called absinthe has sprung up, the principal ingredient being concentrated extract of wormwood. It originated in Paris, and for some time was all the rage, the result being a great increase of insanity, as shown by official statistics. Absinthe was adopted, soon after its introduction, by the New York young men about town; but the fearful prostration and alarming symptoms induced by its use led them to soon discard it; and though still called for occasionally at some bar-rooms, it is now almost a thing of the past, remembered, principally, as being perhaps the most deadly beverage ever concocted.

Several health reformers and writers on hygiene have classed tea and coffee among the articles to be totally discarded. That they are capable of proving injurious to the health is undoubted. The professional tea tasters, for instance, are as a class wan and nervous wrecks; while many brain-workers, by using coffee to spur their jaded faculties, have enfeebled both mind and body. But both tea and coffee have, in numberless instances, proved their restorative virtues, in cases where alcoholic preparations, or any mere stimulant, would be ineffective. Coffee will sustain one against exposure to cold, will invigorate the exhausted, and will sustain life, when deprived of food, far beyond the time it would last without its aid, or with the use of any alcoholic article. In all such cases there is no

reaction, no depression, following its use if used judiciously. Both tea and coffee are nourishing, though both may be used merely as stimulants, and in such cases they are injurious. Coffee will enable a man to do mental work many hours beyond what is natural; but so used it is merely a spur, and the brain forced beyond what it can properly endure will be proportionately exhausted and weakened when the effect of the stimulant has passed. Coffee or tea will enable one to keep awake, but it will not prevent a particle of the injury resulting from the loss of needed sleep. Such uses of tea or coffee are only advisable where of importance, and where present results are more to be thought of than after effects.

As daily beverages, both tea and coffee in moderation appear to be innocent. Indeed, if we must drink anything during our meals, some warm (not hot) beverage is preferable to cold water; but excess is possible, and it is well to use discretion. Some persons are injuriously affected by tea or coffee, or both, and such individuals should, of course, avoid them. They are not to be recommended as a beverage for children, almost always proving injurious, though no bad effects may be at first discernible. Warm milk and water, very slightly sweetened, is probably the best beverage during meals for children.

Excessive use of coffee may produce many disagreeable results. Zimmerman says: "The continued abuse of coffee occasions many nervous diseases, especially among women. It causes eruptions on the face, severe headache, cough, and congestion of the nostrils, lungs, uterus, and hemorrhoidal vessels." The power of coffee to diminish decomposition of tissue renders it valuable in circumstances of unusual fatigue or deficient alimentation. M. Gasparin has shown, that the use of coffee enables the miners of Charleroy to maintain good health and great muscular vigor, with one half the quantity of nutriment ordinarily required. In children the encephalon and muscles are active enough without the use of stimulation, and we should never administer to them an agent which will retard those organic transformations that already progress slowly. As a therapeutic agent, strong coffee in many relieves head-

ache. In miasmatic regions it fortifies the economy against the noxious effluvia.

In the small quantities in which it is ordinarily used as a condiment, vinegar supplies the acid which the system sometimes calls for, particularly at the beginning of warm spring weather. This acid would be *better* supplied by fruits in their natural condition; but even vinegar in salads, pickles, etc., in moderation may be good. There is often, however, an excess in its use which is injurious. It is sometimes believed to possess considerable medicinal virtues; and one proprietary preparation, highly vaunted for its universal restorative and strengthening virtues, claims that vinegar is its foundation. Vinegar is sometimes recommended for reducing a tendency to corpulency; but it is pretty certain, that beyond a very small quantity as a condiment its use is positively injurious, often to a serious, and occasionally to a fatal extent. Its principal injurious action is in preventing the formation of chyme, thereby interrupting nutrition, and producing paleness and wasting. Foolish girls use it sometimes to produce paleness; but such paleness is only an accompaniment of the wasting, which is a step in the direction of death. Vinegar is at best a poor substitute for acid naturally existing in fruits. Tomatoes, lemon juice, or other vegetable acids, will prevent scurvy for an indefinite length of time, but vinegar will not.

Pereira quotes from Portal the following case: "A few years ago, a young girl in easy circumstances enjoyed good health; she was very plump, had a good appetite and a complexion blooming with roses and lilies. She began to look upon her plumpness with suspicion; for her mother was very fat, and she was afraid of becoming like her. Accordingly she consulted a woman, who advised her to drink a small glass of vinegar daily. The young lady followed her advice, and her plumpness diminished. She was delighted with the success of the remedy and continued it for more than a month. She began to have a cough; but it was dry at its commencement, and was considered as a slight cold which would go off. Meantime, from dry it became moist; a slow fever came on and a difficulty of

breathing; her body became lean and wasted away; night sweats, swelling of the feet aud legs succeeded, and a diarrhœa terminated her life. On examination, all the lobes of her lungs were found filled with tubercles, and somewhat resembled a bunch of grapes."

CHAPTER XIV.

OUR HOUSEHOLD POISONS.

A FREQUENT cause of debility, the sapping away of health, and eventually life itself in some instances, are what may be denominated household poisons. These assail us in many forms; in our food and drink, in the air we breathe, and even in our clothing and the earth we tread. I have elsewhere spoken of the importance of pure air, and the deleterious effect of that which is contaminated with impurities or exhausted of its vitalizing properties. I propose here briefly pointing out some of the other dangers, which are perhaps less suspected. Among these are adulterations in food.

Some few years ago, considerable excitement was occasioned in the upper part of the state of New York, by the fact that all who ate of a certain lot of flour ground in that section were more or less poisoned. This was accounted for at the time on the hypothesis of a small quantity of lead having been ground up with the flour. In the American Entomologist, Dr. Walsh suggests that the flour was made from a lot of very buggy wheat. He says that the black snout beetles (sitophilus granarius), about one fifth of an inch long, which are commonly found in granaries, have been used successfully at the south as a substitute for the Spanish blister beetles (cantharides), which are known to be fatally poisonous when taken internally. He also quotes the opinion of a medical man, that these grain weevils are as poisonous as the cantharides.

Notwithstanding that some persons believe the contrary, it

is doubtful whether flour in this country is ever adulterated with plaster, chalk, or ground bones. The bones, at least, would scarcely pay to grind to the impalpable powder necessary for this purpose. Bakers, however, use alum to some extent in their business to whiten inferior flour, as well as to cause it to hold more water. In any quantity, certainly in any that bakers would find useful, this is injurious, destroying important nutritive constituents of the food. A more deadly ingredient has been detected in "French" buns, having a peculiar bright yellow hue. This same coloring is used sometimes in "egg powder," a chemical preparation designed as a cheap substitute for eggs in culinary preparations. This coloring matter has been found in some cases to be chromate of lead. An unintentional poisoning of bread may result from a common practice of city bakers of heating their ovens with the refuse of demolished buildings. Much of this wood is painted, and the white lead, verdigris, and other noxious substances are absorbed by the crust. In the report of a chemical examination now at hand, it is said that this contamination extends only to the lower crust, the top crust and interior of the loaf being unaffected.

In meat, the main thing to fear is a diseased condition of the animal before death, or unsoundness produced by long keeping or the weather.

Milk has seldom anything added to it but water. The most outrageous and injurious fraud in this article is the swill feeding of the cows from which much city milk is obtained. This "swill" is the refuse grain from distilleries, and thousands of cows are fed entirely with it. The animals are kept huddled in noisome pens; never, as a rule, exercised; breathing an atmosphere reeking with foul and poisonous odors; and watered, in some instances, from pools formed mainly of rainwater and the drainage of the stables. Among all these thousands of cows there is not, and cannot be, a single healthy one! The swill, aided by confinement and foul air, produces the most loathsome ulceration, and the animal becomes simply rotten through and through. The only way to prolong life a sufficient time to make a cow "pay," is found to be innoculating her with the disease immediately upon her arrival. Of course, all milk secreted

is slow poison; not only does it lack power to sustain life, but it will destroy it, as it has done in the case of many babes fed with it. It is impossible to exaggerate, or even conceive without witnessing, the disgusting and horrible appearance of the animals and their surroundings—every one of them so far diseased as to render her milk foul and pernicious, and some dying. Not only are the cows milked up to the very point of death—being sustained, when too weak to stand, by ropes from the roof—but, when death approaches thus near, the animals are converted into meat. Indeed, actual death from the foul disease is no bar to this use of the carcass.

To drop a disagreeable though important subject, let us glance at the sweeter matter of candy. Accounts have appeared in many journals of the extensive use of plaster and a certain white clay by candy makers. This adulteration is practiced, but mainly in cheap stick candy, lozenges, and the plaster-image looking figures. The taste will usually expose this kind of tampering; but there are other things even more injurious. The dull red candies almost all contain red lead; bright green almost always indicates the presence of arsenic; while the test so long supposed infallible, that of the *transparency* of the candy, is no longer safe, as aniline colors are now largely used. Severe cases of sickness have been produced by children eating the bright colored, transparent candy.

In Portsmouth, N. H., a scientific individual, whose wife used tea pretty freely, and who for the last few years had suffered much from a nervous affection, recently made an analysis of the tea she used, and found that the coloring material was gypsum and Prussian blue, and that the amount in a pound of tea, if administered at once, would produce instant death.

The use of rye as a substitute for coffee has proved seriously injurious; the grain used is almost always damaged or smutty, not only unfit for food, but possessing considerable poisonous properties.

Poisons may attack us otherwise than through our stomachs. A private letter from Washington mentions the serious illness of a literary gentleman of that city, his dis-

ease being pronounced to be "pen palsy." The affection derives its name from the fact that it is attributed to the use of the popular French copying ink, which contains arsenic. Both his hands and feet are badly swollen, and his health is so precarious that his physicians have prescribed abstinence from labor, and especially from the further use of the copying ink. This case should serve as a warning to those who use the fluid, which has proved so deleterious in its effect.

So many cases of accidental poisoning have occurred from the employment of arsenical green (arsenite of copper) in the arts, that several continental governments are taking measures to proscribe its use, especially in dyeing ladies' gauze dresses, *tulle*, tarletan, artificial flowers, paper hangings, etc. It may be interesting to know that the new green, so fashionable for ladies' dresses, is just as dangerous in its nature as the green wall paper, about which so much was written some time since. It is prepared with a large quantity of arsenic; and we have been assured by several of the leading dress makers, that the workwomen employed in making up dresses of this color are seriously affected with all the symptoms of arsenical poison.

Loss of muscular power, complete or partial paralysis, is the common effect of lead poisoning; and one of the most common sources of this poisoning is found in the cosmetics and hair "restorers" so extensively used. The whitening preparations for giving a smooth, white surface to the skin, *all* contain lead, as no other ingredient has yet been found to answer in its stead. So every one of these, however recommended, however much it may be "warranted harmless," is a poison, whether it is called Bloom of Youth, Cream of Roses, or by whatever poetic appellation. Dr. Lewis A. Sayre reports a case of a lady who had paralysis of both forearms, and was wearing a spinal brace, under the supposition that the paralysis was the result of disease of the spine. The difficulty seemed to steadily increase, baffling all attempts at treatment, until the patient's arms had only power left to close her fingers. The doctor goes on to say: "After two or three days of close questioning, the lady very innocently asked me, 'if whiting would do it.' When

I asked her what it was, she handed me a beautiful little bottle and said it was 'this,' and on looking at the label I found it was 'Laird's Bloom of Youth.' Taking the bottle to Prof. Doremus, I received an analysis the following day, stating that it was highly charged with lead." Antidotes for lead were thereupon administered to the patient, who eventually recovered. From some of the secretions Prof. Doremus, by analysis, obtained a specimen of lead in metallic form.

The hair "restoratives," showing a white powdery sediment at the bottom, without a known exception, contain lead; as is the case with the applications for the face, these possess the poisonous properties of lead. Some persons are less affected than others; death may not result from a few applications by any person, but any substance possessing the properties of this is never safe to use at all. Paralysis of the brain is supposed, on good authority, to have been in some instances induced by these preparations, while headache is a very common result, indicating that the poison is acting in a degree. One hair restorer was found to contain a drachm of acetate of lead to the half-pint.

Lead combs also produce, if used daily, insidious forms of lead poisoning; at least one fatal case being recorded. In all these modes of lead poisoning some persons use the articles for a number of years with apparent impunity, and yet suddenly feel the deadly effects.

Professor Johnson of Yale College, says: "It is a great misfortune that we have nothing to take the place of lead pipes, tin-lined or otherwise. The fact is quite indisputable. Glass and earthen are too fragile and not easy to join. Gutta-percha oxidizes and becomes good for nothing when exposed to air and moisture. Iron rust, although serviceable in many cases, is apt to spoil water for laundry purposes. Lead and tin are best on the whole, and if we simply adopt the rule not to drink or use on the person *water which has been long in contact with the metal*, ill effects need not be anticipated. Lead pipes for the supply of drinking water should be short, and should be freshly filled from the spring or a main of other material just before using their contents. Water that has stood in lead for some hours should never

be employed for drink or for cooking. In consideration of the serious consequences which so often follow the employment of lead for water-service, we may be tempted to declaim violently against its further toleration; yet human life is, at the best, a series of narrow escapes, and we must seek, by intelligence and care, to mitigate and neutralize the evils which cannot be wholly overcome, except at a cost greater than is involved by rendering them harmless by precaution."

Impure water is even more deleterious than impure air. Many cities have been afflicted with fevers from drinking water from rivers contaminated by sewers. Grave-yards have rendered neighboring wells pestilential, and the common habit of placing privies and wells in close proximity often defiles the water with the drainage of the privy. Ordinary surface water often contaminates the water, though in less degree, if allowed access to a well. Drinking water becomes unfit for use if allowed to stand in an occupied room, for it absorbs the effluvia of breath and perspiration, as well as any odor of fresh paint or other injurious or offensive matter. The colder the water, in comparison with the temperature of the room, the greater is its power of absorption. The mere fact that such water is not always noticeably disagreeable to the taste does not prove its purity. Taste and smell are of great service in detecting danger, but are not infallible. It was claimed for the "earth closets" that they prevented the pestilential influence often characteristic of water closets, by neutralizing the odor. The best medical opinions oppose this, as air charged with pestilential influences is not always perceptibly different from that which is innoxious.

There is scarcely a house in this city in which the servants are not in the habit of procuring, often on their own responsibility, to "take out stains," quantities of a substance which bears the innocent name of "salts of lemon," but which is in reality peroxalate of potash. Ignorant of its real character, this corrosive poison is frequently placed on shelves in juxtaposition with condiments used for culinary purposes, where it may readily be mistaken for something else, and a pinch or two applied to flavoring soup. The most frequent

accidents in connection with this article are in taking it in mistake for Epsom salts, owing to their great similarity in appearance. One journal now before me records two fatal cases of this kind.

In some trades there are unhealthful influences, in a measure inseparable therefrom, but many may be wholly or greatly obviated by proper precautions. In the manufacture of friction matches, mirrors, artificial flowers, paints, and others, much of the injurious influence may be counteracted by ventilation, and especially by out-door exercise in the intervals of work, and frequent washing. The habit of taking the noon-day meal in the workroom, the air of which is contaminated with the poison of the materials, is very bad. There is often a neglect to wash the hands thoroughly before eating, and some poison is doubtless carried to the mouth. The skin, however, is more frequently the medium through which the poison gains access to the system, and the longer the particles remain on hands or faces, the longer is the absorption going on. The clothes, too, carry much of the deleterious substances, and in many trades health cannot be maintained by any efforts so long as the same clothes are worn during work hours and the rest of the time.

In many of the trades there are methods known of carrying off poisonous fumes or dust, but even where known they are sometimes neglected. A simple device for protecting the lungs from dust in file-making, iron turning, and similar avocations, is secured by simply allowing the mustache to grow, which will afford tolerable protection. In cotton and woolen factories the girls should generally wear something to catch the dust in the air, which otherwise they would be likely to breathe. Painters, printers, and all workers with lead, in addition to well washed hands, should pay particular attention to cleaning the nails—a nail-brush is the best article to use, as knives or pins irritate the skin—if they would avoid lead colic and the consequent cramps.

CHAPTER XV.

MENTAL WORK—USE AND MISUSE OF THE BRAIN.

MUCH has been written on the injurious effects of intense mental application; these writers generally maintaining that brain-work can only be carried on to a very moderate extent without incurring the penalty of a broken-down mind. There is doubtless a good deal of truth in these statements, perhaps, also, some errors. I am inclined to think most of us could accomplish much more mental labor, with much less danger of injury than at present, did we always go the right way about it.

So far from our being able to endure less mental than physical activity, the contrary would seem to be proved by the fact that, while no set of muscles can be exercised steadily for any considerable length of time without fatigue, there is scarcely any intermission in the activity of our minds during our waking hours.

It is true that every thought, the least mental action, causes a waste, an actual destruction of minute brain tissue, just as every muscular action wears out a minute morsel of muscular tissue; but in both examples this waste is a perfectly natural process, the loss being repaired by nutrition. It is the law of our very existence that this distruction and renewal shall go on. It only becomes harmful when the waste exceeds the repair, whether in the case of mind or body. There is great sympathy between mind and body, each exerting a powerful influence upon the other. Now, for the mind to act powerfully and healthfully, it must be seconded by a healthy body. True, we hear of cases of great mental powers in weak bodies; but those same powers would, beyond question, produce even more brilliant results if their possessor had also sound health.

The mind is strengthened by exercise, not only in a general way, but particularly in whatever special direction it may be applied. But no particular study, art, business pursuit, or hobby should be allowed to monopolize thought, to the exclusion of all other subjects. The mind allowed

to dwell exclusively on one subject loses the power to act in other directions. Not only that, but even in this speciality the mind loses its power to clearly and correctly act, and becomes morbid and distorted—just as the eyes, kept intently on a page, see, by and by, blurred and distorted characters instead of the really legible print.

Our minds, like our muscles, are greatly influenced by habit. I believe clergymen generally feel in the mood for preaching when Sunday comes around; and authors who devote specific hours to literary labor will perform their work day after day, the "inspiration" coming to them, with rare exceptions, at the habitual time. This plan of allotted hours for study or other mental work has the advantage of accustoming the mind to such action at those times, and enabling it better to recuperate its powers by exercise in other directions during the intervals.

Much that is ascribed to inspiration and genius is really the result of systematic cultivation. True, one may possess powers which will triumph over every disadvantage, which no amount of training alone would enable him to do; yet, to the vast majority, training and system are indispensable to great success. Young men or maidens, who fancy themselves born poets or novelists, make a mistake when they shut themselves up in close rooms, deny themselves food or relaxation, and strive to goad their brains into a feverish state, which they erroneously imagine to be the manifestations of genius. By sticking to this plan for a few days or weeks, as the case may be, *something* may be produced; but it will seem anything but a work of genius when the writer's ardor has cooled down. Most of the failures of young authors result, not so much from lack of talent (for many of our successful writers have but a very small allowance of *that* commodity), but from this nonsensical view they take of the subject. Their great need is, supposing them to have some decent knowledge of grammar, orthography and similar rudiments, to learn something of the details of the profession, customs of publishers, public wants, and similar matters, which they can obtain from some literary friend, or from some work devoted to the elucidation of the subject. Then let them sit down quietly in

a pleasant, well ventilated room, and write for, say, half an hour. By following this plan day after day, aiming for what you think yourself most capable—or, if mercenary, that most salable—by and by your talent will begin to show itself, and your productions become more likely to hand your name down to fame. So of any pursuit involving mental labor. Genius prompts its possessor to exercise his gift; if he does not exercise it, it will not burst forth itself.

It is frequently remarked, that we seldom hear of any of the "smart" children achieving eminence when they grow up; while, of those most prominent among the intellectually great men, nearly all are said to have been rather dull when young; some, indeed, being reputed to be downright blockheads. It seems to be a rule, that the most powerful minds develop more slowly than those possessing quickness, rather than depth. Those who learn the most easily generally forget the most readily; and of the things any individual learns, those which require the greatest application to master are usually the longest remembered.* It is unsafe to say that the dullest boys become the smartest men; but what is considered stupidity may in some cases be merely slowness, which often implies thoroughness, and the brightness of another may be really but a superficial, transient quickness.

There is one point, of vital interest to parents, upon which physiologists seem united in opinion, namely, the forcing of mental action in the young. Discrimination must be made between "forcing" and "developing." An infant's mental powers are, at first, about as near nothing as anything well can be, and it is only by their exercise that they can be developed. So, too, youth is the proper

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* A defective memory does not necessarily indicate mental feebleness, but may be merely a want of proper cultivation. There is scarcely any faculty which can be so increased in power by *judicious* training. The principal secret of good memory is system. There are many devices, too, by which memory may be aided. A useful little work for those desirous of self-improvement is one issued by the publishers of the present volume, entitled "How to make Bad Memory Good, and Good Memory Better." The cost is only fifteen cents.

time for acquiring education. Children are always thirsty for information, and acquire rudimentary knowledge much more easily than adults. To prove nourishing, however, this must be presented in proper form and proper quantity; they must be able to comprehend it, and it ought not to be forced upon them.

Attempts have been made to adapt text books on grammar, botany, philosophy, geography, etc., to very young pupils. The "adaptation" consists mainly in using short words and adopting a primer-like style of diction, assuming that the most difficult matter to understand needs only short words to make easy. Children are quick to comprehend matters connected with their own experience and feelings; but it is some years before one can realize the meaning of zones, equators, poles, longitude, latitude, etc.; or that ice really possesses *heat;* or the real signification of nouns, adjectives, and verbs. The ability to repeat any formula of words does not by any means prove a comprehension of their meaning. Unless the meaning is understood, the rules and definitions of the schoolbooks are only so much rubbish encumbering the mind. Every grown person knows the difficulty of learning any collection of words joined without any sense; to a child, the "lessons" which are beyond his comprehension are but the same senseless jumble. Whatever is drudgery is a severer task to the mind than what gratifies a thirst for knowledge.

The practical application of all this is, merely, that all instruction should be adapted to the capacity of the pupil; that learning a lesson "by rote" may be done without gaining a spark of its meaning; and that a distasteful task under compulsion is more difficult to learn, and is more exhausting to the brain, than double the amount of interesting matter. The aim should be to make education pleasant; for a dread of school will often prove a serious barrier to learning even years after, as the mind instinctively recoils from whatever has impressed it with disagreeable feelings, even long before. A child will learn the alphabet much quicker from a box of letters printed on bits of card, and taught them in play, than from the steadiest drilling under severe threats for looking from his book. He will learn the

addition table quicker with his marbles, and a little prompting, than from wearying tasks commencing "once one is one"

Children aided to learn the alphabet and the first steps of primary education in a pleasant way at home, and not consigned to school until seven or eight years of age, will, with equal natural talent,. surpass in a few years those whose school education commenced at three or four. In early youth the mind is very liable to injury from any forcing, and what "forcing" is the child's own instincts will usually show. We should not relinquish the child to ignorance, but we should strive to make learning attractive. The success of the kinder-garten system, and the old style "spelling matches" of our country schools, show how the mental faculties will act better and with less fatigue where agreeably exercised. It may be better to send children to school early than to have them run wild with the rabble of city streets, but the best way is to employ them at home. Let them do something for themselves; let them use their faculties in their play; they take more pleasure in inventing and cutting out dresses and furniture from paper, than from the most elaborate and costly toys which leave nothing for them to do.

Able authorities estimate from four to six hours of mental work sufficient for adults; yet children and young persons are usually required to devote fully this time to duties in school (in recitations alone in some cases), and to devote, as some of the school circulars announce, "fully two hours to study out of school." This study, usually, is done at night, just before bedtime. The brain is excited and fatigued at the same time, the night's rest is disturbed, eyes strained in looking out names on dim maps by bad light, and the intellect dulled from overwork. It is in extreme youth that the greatest injury is done. As we reach our "teens" the mind becomes more disciplined and is capable of greater work; but individual cases of injury from overstudy are numerous in pupils of all ages.

M. Tissot brings an enormous list of accusations against the over-application of the mind, with many interesting illustrative cases. A young gentleman had given himself

up to metaphysical pursuits, which he pursued with ardor, notwithstanding that he felt his health failing. At last he fell into such a condition that he appeared to see nothing, hear nothing, and spoke not a word for the space of a year. He says that he has seen "very promising children, who have been forced to study so constantly by severe masters, that they have become epileptic during the rest of their lives." On this subject Sir H. Holland says: "In the course of my practice I have seen some striking and melancholy instances of the exhaustion of the youthful mind by this over-exercise of its faculties. In two of them, unattended by any paralytic affection or other obvious bodily disorder than a certain sluggishness in the natural functions, the torpor of mind approached almost to imbecility. Yet here there had been before acute intellect, with great sensibility, but these qualities forced by emulation into excess of exercise without due intervals of respite, and with habitual deficiency of sleep."

In young persons, the mode of response to stimulus and requirements on the part of the system is somewhat different, both in nature and extent, from that observed in adults. In early life, and up to the margin of manhood, a great part of the energy of the vital functions is devoted to the direct nutrition and consolidation of the bodily organs. The tissues are soft and yielding, and are capable of being very much modified by external agency. If a strain of unusual force be applied, the result is not necessarily, as in the adult, fatigue, which may be readily relieved by rest; but the organ yields and its efficiency is impaired. Thus the heart over-excited in a child will become dilated; the bone on which unnatural pressure is exerted bends; the ligament often or long stretched yields and becomes relaxed. Now, the brain being subject to precisely the same laws as other organs as to nutrition, we shall expect to find here also a difference in its response to the calls made upon its action. Long continued exercise of the mental functions will be attended, as in the adult, by increased circulation and activity of the nutritive functions of the brain; but there is this difference, that the brain tissue here is soft and yielding, and instead of offering the normal resistance to

the abnormal afflux of blood, it yields to the pressure, the vessels become enlarged, perhaps permanently, and congestion is the result—productive not only of serious consequences for the time being, but, by the very fact of its occurrence, inducing an ever increasing liability to its *recurrence.* Then, perhaps, the overcharged vessels make an attempt to relieve themselves by pouring out some of their fluid contents, and effusion into the ventricles or on the surface of the brain is the consequence. It is easy to conceive, from these considerations, what is the lesson which physiology would teach us in reference to the consequences which may be predicted from intense application in the young. These consequences will be still more marked and serious if the attention be confined exclusively to one class of ideas—if one faculty be cultivated and urged forward, to the exclusion or neglect of the others.

The testimony of writers on the subject of the effects of mental labor upon the body is singularly unanimous; none seem to doubt its dire results, especially if commenced young, if pursued long and constantly, and if directed too exclusively to a restricted range of ideas. Dr. George Moore, who has entered deeply into these inquiries, makes the following observations:

"The brain of a child, however forward, is totally unfit for that intellectual exertion to which many fond parents either force or excite it. Fatal disease is thus frequently induced; and where death does not follow, idiocy, or at least such confusion of faculty ensues, that the moral perception is obscured, and the sensitive child becomes a man of hardened vice, or of insane self will."

I quote the following passage from the Scarificator: "There is that which destroys more fatally than continued physical exertion. The tendency that over brain work has to destroy the intellect has been long observed. Southey died in darkness from over toil. Walter Scott—he who Anglo-Saxonized the language of Europe and made a literature—broke down near sixty, and went to his grave with a soft head. 'Tis but the other month a young Scotchman died in London, worn out, his mind a blank from literary toil. And (who can doubt it?) Angus B. Reach—a clever,

witty fellow he was—might have laughed much longer and made others laugh, too, if he had only taken half care of himself!

> "'From Marlborough's eyes the tears of dotage flow,
> And Swift expires a driveler and a show'—

a soul in ruins. Those mysterious, appalling afflictions, laying desolate and waste 'minds that could wander through eternity,' have made us pause and wonder at the awful dispensations of an all-wise Providence, and for a moment doubt their justness. The continued tear and wear, the constant demand for more, more, more, sets the cerebral mass 'on fire.' 'My brain is burning—I can bear life no longer!' said the author of the 'Old Red Sandstone,' and shortly ceased to exist. Strange, some said, how Providence should have allowed such a man to pass away from earth in such a manner; but when we consider the subject philosophically, there is nothing mysterious in it, however much we may regret the circumstance. Providence acts by general, not by special laws. Hugh Miller was intellectually a giant, and, physically, possessed a frame of iron; but he violated the laws which govern health; he demanded more work from his brain than it could well perform; it reeled and staggered, but it reeled and staggered in vain. He pulled away and lashed it into fury, and he perished to gratify his genius and his ambition."

There is a danger sometimes incurred where a child has any one predominant talent or aptitude. While such a gift will naturally take the lead, it is wrong to urge its development too much. At an institution for the insane on Long Island, some years ago, was a beautiful girl about fifteen years of age. Most of her time was passed at a piano which had been furnished her, and in which alone she seemed to feel any interest. Her playing and singing were simply wonderful; with a voice of exquisite sweetness, great compass and richness, she would pour forth melodies, often apparently her own wild invention, and then in the very midst break off abruptly, with a maniacal laugh, and then talk of her mother's expected arrival to take her home, or of whatever fancy her disordered brain conjured up. She had at a very early age possessed so fine a voice

and shown so great a musical talent, that her parents designed her to become a professional singer, and with this object had pushed her musical education with the utmost vigor—alas, with too much; for long before the time set for her debut, her brain gave way beneath the rigors of her tuition; the blight of insanity fell upon her young, hopeful life, probably never to be removed this side the tomb.

Perhaps some of the evils supposed to result from studious habits and brain work generally are more properly attributable to other causes. Schoolrooms, with their frequent lack of ventilation, may be the unsuspected cause of pallid faces and heavy heads. Many members of the legal, medical, literary, and other professions, who are supposed to succumb beneath their intellectual labor, really sink beneath a much more potent power—alcoholic or other stimulants. There is often a fatigue, often a lack of thought; ideas seem loth to come; and the temptation is strong to revive flagging energies, arouse sluggish thought, and stimulate imagination by liquor or drugs. The demands of a profession sometimes compel overwork. This is bad enough, but when under the goad of stimulants is much worse, and the stimulants themselves too often lead to inveterate habits of intemperance. Add the unnatural hours often necessitated, the confined habits, the indigestible food, and a host of other unfavorable influences, and brain work must not be accused of *all* the broken down constitutions and early deaths. Certain unnatural and pernicious indulgences, which schoolboys and students in some cases give way to, are, in such instances, the real cause of troubles ascribed wrongly to excessive study.

It is impossible to set any invariable rules as to the amount of brain work which shall be safe or beneficial in all cases. What would only be healthful exercise for one would drive another to madness. Nature generally gives a pretty clear hint to those who are sensible enough to take it. When thought becomes painful, when you are wearied with any one subject, drop it; turn your thoughts into a new direction; or, if it be evening, go to bed. Sleep is the great mental restorer. Don't attempt to be studious or "professional" all the time; seek cheerful society; sympa-

thize with others. Seek to strengthen the constitution; take judicious exercise; breathe plenty of fresh air; eat wholesome food and digest it well; keep the bowels regular; sleep plentifully, and, as far as possible, at reasonable hours. As Dr. Elam says: "Fear not to do manfully the work for which your gifts qualify you; but do it as one who must give an account both of soul and body. Work, and work hard, while it is day; but the night cometh soon enough—do not hasten it. Use your faculties, use them to the utmost, but do not abuse them; make not the mortal do the work of the immortal. The body has its claims; it is a good servant; treat it well, and it will do your work; it knows its own business; do not attempt to teach or to force it; attend to its wants and requirements; listen kindly and patiently to its hints; occasionally forestall its necessities by a little indulgence, and your consideration will be repaid with interest. But task it, and pine it, and suffocate it—make it a slave instead of a servant—it may not complain much, but, like the weary camel in the desert, it will lie down and die."

A mistake is sometimes made by students in their first ardor; they commence their efforts with a rush, reaction follows, and they become dispirited. The true way in adopting studious habits, or any pursuit involving brain work, is to commence with moderate efforts, increasing them as exercise strengthens the powers. In the same manner that certain muscular actions, at first painful, difficult, and complex, become perfectly easy, and are performed almost, if not altogether, without attention, after long practice and frequent repetition, so processes of thought, which originally induce painful sensations, and confusion in the mind or brain, become by repetition familiar and simple, and are attended by no pain at the time, nor any inconvenience subsequently. And thus the most complex operations of the mind, calculations involving the most intricate processes, and analyses of the utmost difficulty, are at last performed with an ease, and almost unconsciousness, rivaling the extempore performances of the most finished artiste on a musical instrument. It is of importance to mark this and by so doing failure to injury may be avoided.

CHAPTER XVI.

NECESSITY OF PROPER SLEEP—WHEN TO SLEEP AND HOW TO SLEEP—EVILS OF SLEEPING WITH OTHERS.

SLEEP in due amount is absolutely essential to continued health of mind and body. Nervousness, headache, depression of spirits, morbid feelings, and many other evils, result from a want of sleep, and if the deprivation be sufficiently long continued, actual insanity is produced. The approach of insanity is, indeed, generally accompanied by excessive wakefulness; and the power of some insane persons to go for days, almost weeks without slumber is well attested.

The proper amount of sleep varies with each individual, and depends on age, occupation, etc. Eight hours out of the twenty-four are considered about the average. In infancy this will be largely exceeded, the child for some weeks after birth doing little else. Children should be allowed to sleep all they are inclined to, without the stupefying influence of drugs or soothing syrups. If a child, from unusual fatigue or disturbed slumber in the earlier hours of the night, sleeps beyond the usual hour of rising, it is best not to arouse him. Brain workers usually require more sleep than those whose occupations are mainly manual.

Next to the due amount, the important point is, the particular hours to be devoted to slumber. The night is evidently the time, and it seems equally certain that the early hours thereof are those in which slumber proves the most recuperative. Hufeland, a German authority of the highest repute, gives an interesting and doubtless correct theory regarding this subject in one of his books. He says:

"Many believe that it is entirely the same if one sleeps seven hours either in the day or the night time. People give themselves up, therefore, at night, as long as they think proper, either to study or pleasure, and imagine that they make everything even, when they sleep in the forenoon those hours which they sat up after midnight. But I must request every one, who regards his health, to beware

of so seducing an error. It is certainly not the same whether one sleeps seven hours by day or by night; and two hours' sound sleep before midnight are of more benefit to the body than four hours in the day.

"That period of twenty-four hours, formed by the regular revolution of our earth, in which all its inhabitants partake, is particularly distinguished in the physical economy of man. This regular period is apparent in all diseases; and all the other small periods, so wonderful in our physical history, are by it in reality determined. Now, it is observed, that the more the end of these periods coincides with the conclusion of the day, the more is the pulsation accelerated, and a feverish state is produced, or the so called evening fever, to which every man is subject. The accession of new chyle to the blood may in all probability contribute something toward this fever, though it is not the only cause, for we find it in sick people who have neither eat nor drunk. It is more owing, without doubt, to the absence of the sun, and to that revolution in the atmosphere which is connected with it. This evening fever is the reason why nervous people find themselves more fit for labor at night than during the day. To become active, they must first have an artificial stimulus, and the evening fever supplies the place of wine. But one may easily perceive that this is an unnatural state, and the consequences are the same as those of every simple fever—lassitude, sleep, and a crisis by the perspiration which takes place during that sleep. It may with propriety, therefore, be said that all men at night have a critical perspiration, more perceptible in some and less so in others, by which whatever useless or pernicious particles have been imbibed by our bodies, or created in them during the day, are secreted and removed. This daily crisis, necessary to every man, is particularly requisite for his support, and the proper period of it is when the fever has attained to its highest degree—that is, the period when the sun is in the nadir, consequently midnight. What do those do, then, who disobey this voice of nature which calls for rest at the above period, and who employ this fever, which should be the means of secreting and purifying our juices to enable them to increase their activity and exertion? By neglect-

ing the critical period, they destroy the whole crisis of so much importance, and, though they go to bed toward morning, cannot certainly obtain on that account the full benefit of sleep, as the critical period is past. They will never have a perfect, but an imperfect crisis, and what that means is well known to physicians. Their bodies, also, will never be completely purified. How clearly is this proved by the infirmities, rheumatic pains, and swollen feet, the unavoidable consequences of such lucubration.

"And lastly, those who spend the night in labor, and the morning in sleep, lose that time which is the most beautiful and the best fitted for labor. After every sleep we are renovated in the most proper sense of the word; we are, in the morning, always taller than at night; we have then more pliability, powers, and juices—in a word, more of the characteristics of youth; while at night, our bodies are drier and more exhausted, and the properties of old age then prevail. One, therefore, may consider each day as a sketch in miniature of human life, in which the morning represents youth, noon manhood, and evening old age."

In the young, this observance of early hours is specially important. The practice, so common, of requiring children to study in the evening the lessons for the next day is doubtless productive of much harm. Not only is it exhausting to the vital force, but the stimulation of the mind so near the hour of retiring tends to prevent healthful slumber.

All mental emotions are unfavorable to repose. The merchant who has been fortunate in some daring speculation cannot sleep for joy if he dwells upon his successes after retiring to rest. Another who has met with reverses will be sleepless from sorrow if, as too often happens, his losses intrude upon his thoughts during the night. But it must be admitted that, as a sleep-dispeller, joy is far inferior to grief. The memory of what we achieve or of what we gain is never so persistently active as the memory of what we lose. The recollection of the one soon dims through repetition, while that of the other long preserves its force.

Indigestion is a very common cause of wakefulness. Anything which acts as an irritant to the stomach is apt to irritate the brain by means of the close union which exists

between these organs through the medium of nerves. For the same reason heavy suppers, taken when the necessity for them is not felt, commonly produce broken sleep, or cause it to be disturbed by disagreeable dreams, sometimes of all the horrors of nightmare.

On the other hand that kind of exhaustion which occurs from want of food frequently prevents sleep. When a person, accustomed to dine late, happens to dine early, and goes to bed without any substantial refreshment, he is very liable to find himself utterly sleepless. It may be that no actual hunger is experienced. It is rather an indefinable sensation of sinking in the region of the stomach which gives no distinct indication of the want of food. This kind of sleeplessness is apt to be very persistent, because the exhaustion increases in proportion to the time during which the person remains awake. In such a condition a sandwich or a bowl of mutton or beef broth act better and more speedily than an opiate. No sooner has food been taken, than a glow of comfort and a tendency to repose succeed, and the person soon falls into refreshing sleep. It is not difficult to comprehend how this occurs; the brain in its previously vigilant state was too full of blood by which its unnatural activity was sustained. When food was taken into the stomach the process of digestion was excited, and the superabundant blood was, by this means, diverted from the head to the abdominal organs.

Many articles cause wakefulness when taken internally. Of these, tea and coffee, are the most familiar. Every one knows that either, but especially tea, when taken too strong, prevents sleep. Opium in small doses, belladonna or deadly nightshade, or Indian hemp, produce the same effect. Each of these substances has also a specific action of its own. There are good reasons for believing that all these drugs act alike, in at least one respect, namely, by increasing the circulation of the blood in the brain. This is attended by increased activity and power of thought.

Nothing banishes sleep more effectually than pain. Patients suffering from neuralgia have been almost sleepless for months. But no amount of pain can altogether do away with sleep, nor will mental depression or fear prevent repose

when exhaustion ensues. Wretches are said to have slept while undergoing the punishment of the rack, and culprits usually sleep soundly on the night preceding their execution.

Cold, when not excessive, dispels sleep, because of the discomfort it induces, and probably also on account of the derangement of circulation which it produces. Coldness of the feet is a very common source of wakefulness. A sensation of dry burning heat in the soles of the feet and palms of the hands, to which some people are liable, and which also accompanies certain diseases, is another cause of sleeplessness. Sponging the parts with vinegar and water relieves this affection.

Another cause of sleeplessness, little recognized, is taking stimulating drinks. It is certain that in a great number of instances stimulants do not agree with the system, and that many people would sleep much better if they abstained from them altogether. This is by no means inconsistent with the fact that a certain dose of brandy and water, or its equivalent, is considered by some persons indispensable to repose. Anything to which the system has become habituated from constant repetition grows into a necessity. In the present case an *unnatural* want is established, which, if not attended to, is a cause of discomfort and consequent loss of sleep.

The effects of protracted wakefulness sooner or later show themselves in the strongest constitution. The person becomes gloomy, irritable, and peevish. The memory is defective, and the thoughts confused. Perhaps the most terrible punishment which Chinese ingenuity has devised, is prolonged loss of rest. In some instances it leads the way to, and even seems to be the cause of, insanity. Some of the greatest intellects have suffered from privation of sleep: Newton's mind was impaired by it in his later years; Southey's insanity was preceded by it. The more gifted and cultivated the mind of an individual is, the more liable he will be to wakefulness. The untutored sons of bodily toil have but few vigils, and among all the animals sleeplessness without internal cause probably belongs to man alone. The lower animals are soon affected by loss of sleep. In Ceylon, wild elephants are kept constantly awake

until they become tame; by this means the spirit of the most refractory is soon subdued.

In order to promote sleep in cases where it is wanting, it is, of course, in the first place necessary to remove every exciting cause of wakefulness. It is generally essential to give up the use of tea and coffee, and, as has been said, it is sometimes necessary to leave of stimulants. The person should take care that he does not go to bed either with cold feet, or with a stomach that has been long empty.

Many devices for inducing somnolence have been practised with more or less success; one of these is combing the hair, which has a very soothing effect on some persons. Another is to have the feet gently shampooed. Walking about the bed-room in one's night-dress, so as to get what Dr. Franklin called an air bath, is a good plan, and the cold water bath just before retiring to rest, by virtue of its stimulating action, is often successful. In more refractory cases the warm bath may be tried—it acts by withdrawing the blood from the brain. On the same principle, this upright position, by favoring the return of blood from the head, is sometimes useful. It is, indeed, no uncommon thing to meet people who sleep with great facility when sitting in a chair or in a carriage, but who sleep with difficulty when lying down in bed.

The best bed to sleep upon is a hair mattress, and the worst of all is that made of feathers. Many people are so susceptible that they are unable to sleep in a strange bed. A pillow filled with hops, the emanations from which are narcotic, has been sometimes used with success to induce sleep, and if anything must be used, this is probably best.

People, as a rule, go to sleep most easily when lying on the right side. Proper ventilation of the bedroom is indispensable for sound sleep and for health.

Sufficient out-door exercise should in every instance be taken, and those who are strong enough should carry it to a sense of fatigue. In the Satires of Horace, to swim three times across the Tiber is recommended as a means for procuring deep repose.

One of the most effectual modes of overcoming wakefulness is, to force upon the attention some monotonous train

of thought, and to tire the brain by its constant repetition. Reading a dull book on a heavy subject sometimes answers. Repeating short verses over and over, or counting backward, is often successful. Monotonous sounds act in this way. Boerhaave ordered for a sleepless patient that water should be so arranged as to drop constantly on a metal pan. The murmur of a flowing stream is for the same reason soporific.

The whole chance of success lies in compelling the mind, by a strong effort of the will, to give up the train of ideas by which it has been occupied, and to take up the less interesting and more simple ideas or perceptions presented to it.

Many years ago, a curious plan for procuring sleep by this means was announced by a Mr. Gardner. As this plan made some noise at the time, and was reported to have seldom or never failed, we shall give a full description of it. Let us suppose, then, a person to be in a particularly wakeful state, and that he has tossed and tumbled about into the small hours of the morning without any feeling of somnolence. If he should now desire deep repose, the following proceedings must be adopted: he is to lie on his right side, with his head comfortably placed on the pillow, having the neck straight, so that respiration may be unimpeded. Let him then close his lips slightly and take a rather full inspiration, breathing through the nostrils as much as possible. This last, however, is not absolutely necessary, and some persons breathe habitually by the mouth. Having taken the full inspiration, the lungs are to be left to their own action; that is, expiration is not to be interfered with. Attention must now be fixed upon the respiration. The person must imagine that he sees the breath passing from his nostrils in a continuous stream, and at the instant that he brings his mind to conceive this apart from all other ideas, consciousness leaves him and he falls asleep. Sometimes it happens that the method does not at once succeed; it should then be persevered in. Let the person take in thirty or forty full inspirations and proceed as before; but he must by no means attempt to count the respiratory acts, for if he does, the mere counting will keep him awake. Even though he may not now succeed in pro-

curing very sound sleep, he will at least fall into a state of pleasant repose.

Such is the account, somewhat abridged, of this much vaunted "art of procuring sound and refreshing sleep at will," given by Mr. Binns in his Anatomy of Sleep. He, it seems, purchased the secret from Mr. Gardner, and hints at his generosity in having made it public *gratis*. It is founded on the principle that monotony, or the influence on the mind of a single idea, as we have already shown, induces slumber. The inventor had for years suffered great agony with consequent sleeplessness from injury to his spine. In this sad condition, opium and other sedatives were found rather to increase than to allay his sufferings. He was a contemplative man, and at length discovered the secret of "subduing sleeplessness and commanding repose by a sim ple effort of volition." The plan is at all events safe and easy of application, and any wakeful reader can test it for himself.

Is it possible to take too much sleep? Not if it is sound, natural slumber. It would seem, however, that the practice of half dozing in the morning, after the regular night's sleep is accomplished, sometimes produces listlessness and languor, besides confirming the habit. Bad sleep, as for instance where the sleeper is haunted with terrifying dreams, not only fails to recuperate, but actually wearies. Late morning second naps, generally unsound, are often accompanied by lascivious dreams, which may result in debilitating influences. Lying awake in a warm bed, after due slumber has been obtained, has a tendency to develop lascivious thoughts, and, as will be shown in a subsequent chapter, these sometimes lead to evil results.

Sleeping with aged persons appears to exert a very serious, injurious influence upon the health of children. We believe the old have sometimes encouraged the plan, under the impression that it was beneficial to their own health and tended to the prolongation of their own lives. I can scarcely think they intend to injure the children, and perhaps do not believe any harm will result. While the benefit to the aged is considered, by those best qualified to judge, to be only imaginary, the injury to the child seems

beyond question. One physician mentions a little girl who had been accustomed to sleep with her grandmother from her fifth year to her twelfth year. When about six years of age she began to manifest symptoms of declining health. Heretofore plump, rosy, joyous, and full of healthful vivacity, she became, as the years rolled by, pale, languid, and thin; she lost her former buoyancy of spirits; nervous headaches became frequent; she was puny, weak, and small for her age and growth; and life itself seemed blighted by some mysterious influence. None seemed to suspect the cause, some attributing it to the fact that "she was growing." Beyond all doubt, this wasting away was the result of the six or seven years' sleeping with her aged relative. If I am not mistaken, when her case was referred to the family physician, when she was about twelve years old, and he suggested this cause, it was deemed an idle theory and the evil permitted to continue. I believe her death was the penalty before her family realized the danger.

Whatever may be the secret of this baneful influence—whether "electrical influence," "nervous force," or whatever other name it is called by—it does not appear to be restricted to instances where young children sleep with very old persons, but to cases where there is any considerable difference in the ages of the parties; thus, where there is a difference of, say, twenty years or more in the ages of a married couple, there seems to be an injurious effect upon the younger, generally proportioned to the difference in years.

The influence is also felt where the robust sleep with the weakly, and where one sleeps with a consumptive patient. It is claimed by some writers that the same influence extends to cases where the parties have different constitutions. The exact meaning of the phrase is not so clear as might be desirable, and it may be theorizing beyond what can be supported by facts.

Perhaps a part of the debilitating influence is due to the fact that much impurity goes from the body in the form of insensible perspiration. This contaminates the air of the bed; and it may be that the skin of the other person actually absorbs a portion of this impurity.

Injury is doubtless produced by the almost universal use of double beds in boarding schools, aggravated by the fact that there is usually no change made even in cases of sickness, unless it be severe. Large dormitories amply ventilated, with a bed allotted to each sleeper, are probably preferable to small rooms occupied by even so few as two or three pupils. Two beds are frequently crowded into a room of very moderate dimensions, and as many as three sleepers required to occupy each bed; and the room in addition, as likey as not, with very imperfect means of ventilation.

In addition to the fact that children are sometimes taught bad habits by sleeping companions, the animal warmth has a tendency to stimulate sexual instincts, and without any impropriety of conduct, or even consciousness thereof, feelings which should much longer lie dormant may begin to be awakened.

CHAPTER XVII.

CONSUMPTION—ITS CURABILITY—DIRECTIONS FOR SELF TREATMENT—FALLACIOUS THEORIES AND MODES OF TREATMENT, ETC.

ACCORDING to Professor Henry J. Bowditch, about one fourth of all who die annually in Massachusetts are carried off by consumption! Consumption is one of those diseases which frequently prove a hereditary scourge in families, sweeping off the members of generation after generation until their extinction, or until the infusion of new blood overcomes the hereditary taint. In some cases, so little strength do the lungs possess, and so strong is the tendency to disease, that no power on earth can avert the fate which overshadows the victim. Where, however, the predisposition to consumption is less marked, where only one parent has been consumptive, and the other remarkably vigorous, or where consumption exists only in remote an-

cestry, precautionary measures will often save the individual from any trouble.

Many medical men are of opinion that the fatal forms of tubercular consumption result largely from venereal diseases in some ancestor, and that consumption bequeathed from this source is incurable. No one, however, should neglect any possible effort to ward off the disease.

It is probable that most of the consumptive cases are produced by local climatic or sanitary influences, sedentary and confining employments, lack of exercise, fresh air, etc. The discovery—and it certainly is a discovery of immense importance—has been recently made, both in America and in England, by independent investigators, of the fact, which is so universal that it constitutes a law, that soil moisture is a potent and chief cause of consumption; to which may be added the correlative fact, that dryness of the soil is characteristic of all places on the globe where consumptives resort with advantage. It is to Dr. Bowditch, of America, and Dr. Buchanan, of Great Britain, that the world is indebted for the elucidation of this inestimable information. Dr. Bowditch says: "In 1854 a committee was appointed by the Massachusetts Medical Society to investigate the origin of consumption in Massachusetts. Among questions sent out to physicians in every town in the commonwealth, and upon which either positive statistics or medical opinion was obtained from all the towns, were two upon the influence of locality. Contrary to all preconceived notions, the committee was compelled to draw the following inferences from the facts presented by correspondents: First, phthisis is very unequally distributed in New England; second, there are some places which enjoy a very great exemption from its ravages, if not quite as much exemption as any portion of the globe can claim; third, there are some spots, nay, even particular houses, which are frightfully subject to it; fourth, there is a cause governing this unequal distribution of the disease—a law not recognized before these investigations, and still practically ignored by the majority of human beings, which, however, is one of the main causes, if not the sole cause, of this *unequal* distribution in New England, and possibly elsewhere; fifth, this cause is inti-

mately connected with, and apparently dependent on, moisture of the soil, on or near which stand the villages or houses in which consumption prevails."

Dr. Bowditch states, that there are from twice to three times as many deaths from consumption in the wet places of New England as in those that are dry; and that, generally, in proportion to the amount of dampness of the soil is the tendency to death by consumption.

The fact that "wetness of the soil is a cause of phthisis to the people living upon it" should be universally recognized, published and proclaimed, until every man shall in future build his house on dry ground, or thoroughly underdrain every building spot that is damp, and look well to it that his house is not unduly shaded by trees and vines, to the exclusion of dry air and sunlight; also, that those who now dwell in houses standing upon wet ground may take immediate and efficient measures to remedy the evil by drainage, and spare not the noblest tree or finest vine with which they are surrounded, provided they exclude the sunbeams and the drying breeze. Then will the fearful mortality from consumption be sensibly diminished, and the physical condition of the race greatly improved.

But there are other things besides houses on damp ground which tend to produce consumption. To keep in health the lungs must be exercised, and must be supplied with plenty of fresh air. Not only this, but the general health should be promoted, as the lungs, as well as other organs, are influenced by any general debility. For this reason, consumption is sometimes caused or hastened by certain sensual indulgences. A stooping position, so common among book-keepers, students, and in many confining trades, is exceedingly bad, and combined with lack of exercise and the generally close and impure atmosphere of workshops, schools, and offices, is a frequent cause of consumption.

Prevention is better than cure; but you should not defer the prevention until the disease has got a firm hold on you. If you are of delicate build, if you suspect any of your ancestry were consumptive, or if you are troubled with cough, or if colds seem to select your throat or chest as a location, it is well to be on your guard. Many imagine

they have consumption when the trouble is elsewhere than in the lungs; many have nothing serious the matter; but it does no harm to take precautions, and these *may* save you from a premature grave.

The danger of neglecting a cough or a cold, and its probable ending in consumption, are subjects for frequent advice to ward off the danger by taking so-and-so's syrup or other preparation. I believe all these advertised nostrums not only utterly worthless, but an absolute injury. They frequently allay the disagreeable sensations, but it is by checking nature's efforts toward a cure, and, by lulling the patient into fancied security, they prevent his adopting proper means to effect a real cure. By and by the pent-up disease will break forth with redoubled violence. The "troches," "pectoral syrups," "lung balsams," and similar concoctions are believed in time to produce very serious injury.

The regular faculty have, with praiseworthy zeal, striven to discover remedies for consumption. We have phosphate of lime, cod liver oil, naphtha, and other articles recommended and experimented with, often with announcements of highly successful results. But one after another of these fall into disfavor after a brief season of popularity, to be followed by some other vaunted cure. But the recoveries in cases where these or other medicines were used, I am inclined to think, resulted from improved hygienic rules adopted by the prescribing physician, rather than from the medicines themselves. I do not say that medicine may not in some cases of consumption (which is often complicated with other ailments), if administered by a qualified physician. But in all attempts at self treatment, it is almost certain that every dose of medicine merely hastens death. Articles absolutely injurious are frequently taken, and even where the dose is innoxious, time is frittered away in idle experiments, until, after trying the long list of balsams, pectorals, etc., there is left only a rotten, ruined hulk, beyond the possibility of repair. The most successful practitioners content themselves largely in giving nature fair play, placing the patient under favoring hygienic influences and using little or no medicine. I do not think it wise for any one to expose himself continually to the causes of con-

sumption, trusting to curing himself should he be attacked. Though consumption may be arrested, it is better to prevent it entirely by exercise, erect attitude, sunlight, avoidance of dampness, and proper food.

Consumption is principally a want of nutrition. The first essential in effecting a cure is to digest the largest possible amount of nourishing food. The error must not be made of stuffing the stomach—the food is worse than worthless there if not well digested. To promote digestion, exercise must be had; not violent gymnastic evolutions, but gentle out-door occupation. Fresh air is essential. It is probable that all the good effects of cod liver oil are due to its nourishing properties; and as this is frequently adulterated, and even when pure does not agree with some stomachs, it is likely that all its virtues may be found in bread and meat. Raw beefsteak, or that but slightly cooked, light bread, and pure water, with such fruits and vegetables as may be desired, are the best "medicines." I do not think it essential that the diet should be *confined* to any particular articles. Only avoid all pastry, cake, rich gravies, and indigestible articles of every kind. The stomach must not be overloaded; it is what you digest, not what you swallow, that nourishes you, and regularity in eating is important; then get as much cheerful, out door exercise as possible, avoiding severe exertion and fatigue. The following story shows the beneficial results of such a course of treatment, even though perhaps in this case, toward the last, carried somewhat to excess:

"Several winters ago, a well known New Yorker, famous among other things for his physical strength, arrived in Albany quite ill, and took to his room at a hotel. Growing worse, he sent for a physician, who found him suffering from a good deal of fever and general derangement. Days passed on and the patient grew no better. Finally he told his physician that his own opinion was that his whole system was overcharged with water—that he could feel it—that it seemed to oppress him like the nightmare. The physician did not readily fall in with this view of the case. The patient grew no better, and sending for some friends, he insisted upon at once returning to New York, where he

would be at home, and have the care of physicians whom he knew, and who knew him. Against all protestations he bundled off. In New York the physicians made a diagnosis of his case, and concluded the man was suffering from Bright's disease of the kidneys. They told him plainly the nature of the disease; that it was obstinate—one which could be relieved, but not cured; and that the probabilities were, it would carry him off in a year. Recovering from the attack very slowly, and reduced to a skeleton, his first attempt to walk was across his room; the next day he walked twice across his room; and repeating the exercise daily, he found he gained a little, very little every day. In a month he walked half a block from his home and returned.

In this state of convalescence, he remembered what dieting had done for him on one occasion; that under a strict regimen of the plainest food, regular exercise, attention to hours of sleep, and careful avoidance of every possible excitement, he had wonderfully increased in strength and agility in the course of a few months. He reasoned if this diet and exercise was good for a well man seeking even more strength, it would be efficacious in the case of one who had everything to gain. Explaining his theory to his physician, the reply was, the experiment could do no harm. So the patient became his own doctor. His food at once became exclusively lean mutton and Graham bread, three times a day, in limited and measured quantities, which were never varied. His exclusive drink was cold water. As his strength increased, he increased his exercise by dumb bells, lifting weights, etc., but mainly by long, vigorous walks, usually wholly by himself. Improvement was steady from the commencement; and with improvement in vigor and spirits came an appetite which, it seemed to the man, the larder of a first class hotel would fail to satisfy. And here came the trial. Surrounded by everything to tempt him, the battle between hunger and regimen was often severe; but regimen triumphed every time. Often encountering in his rounds, at hotels and restaurants, "feasts of fat things," he thought he would give thousands of dollars could he partake and gratify his appetite as others were

enjoying theirs. But he said it occurred to him, at these times, that with him the question of abstinence had become one of life and death. In all this he persevered for two years, at the end of which time he considered himself a well man, without a vestige of disease about him, and as fine a specimen of the man physical as one meets in a lifetime.

"There are eminent physicians in the city of New York who know the particulars of the case as we have related them. They consider the facts as having an important bearing on a class of disease, and have written them out with a view of bringing them to the more general attention of the medical faculty. The hero of the case is John Morrissey, ex-prize fighter, and since member of Congress. The regimen he adopted to cure himself of disease was the same, in all respects, as the one he was put under by his keepers while training for his famous prize fight with Heenan."

Dr. Hall says: "Consumptive people die for want of strength, want of flesh, want of nutriment—not for want of lung substance, as is almost universally supposed. They die, in almost every instance, long before the lungs are consumed so far as to be incapable of sustaining life. Numerous cases are given where men have lived for years with an amount of available lungs not equal to one fourth of the whole. They were there, perhaps, but not available, not efficient. The majority of persons who die of consumption perish before a *third* of the lungs have consumed away, in consequence of loose bowels, torpid liver, indigestion, night sweats, want of sleep, clogging up of the lungs with matter and mucus by the daily use of cough drops, balsams, tonics, or other destructive agents. These symptoms need but be controlled to protract life indefinitely; that is, if the symptoms were prescribed for according to general principles, and the patient properly nursed, letting the consumptive portion of the disease alone, it would sometimes cure itself, or at least allow the patient to live in reasonable comfort for a number of years.

"The reader may almost imagine that he has a clue to the cure of consumption, if he could but give the patient phosphorus and lime, or phosphate of lime—that is, burned

bones—eight or ten grains, with the first mouthful of each meal, so as to let it be mixed with the food and carried with it into the blood, from twenty to thirty grains being daily needed in health. The scientific world were charmed less than a hundred years ago by the discovery of oxygen. It was supposed, that as oxygen was the constituent of the air which imparted vitality to the blood, gave it its purity, its activity, and filled the man with life and animation, nothing was needed but to take enough oxygen to purify the blood, and thus strike at the root of all disease. Accordingly the oxygen was prepared and administered. The recipient revived, was transported, was fleet as the antelope, could run with the wind. He smiled, he fairly yelled for joy, and—died laughing, or from over-excitement. The machine worked too fast; it could not be stopped; and pure oxygen has never been taken for health since. Thus it will perhaps always be with artificial remedies; they cannot equal those which are prepared in nature's manufactory. The phosphate of lime, in order to answer the purposes of nature, must be eliminated from the healthful digestion of substantial food in the stomach; and the only natural and efficient means of obtaining the requisite amount is, to regulate the great glands of the system in such a manner as to cause the perfect digestion of a sufficient amount of suitable food."

The preparation which Dr. Churchill believed a specific for consumption, and which he generously made public when it was believed he could realize a fortune by keeping it, was afterward renounced by him, for he found that with the most honest intention, and with undoubted skill and learning, he had still made a mistake. His hypophosphates are now extolled only by parties who prepare and advertise them as a proprietary article. The "inhalation" is now exclusively in the hands of quacks; the respectable members of the medical profession, after a faithful trial, utterly discarded it as worthless, and often positively injurious and dangerous in practice, whatever it may have been in mere theory. This verdict may be safely applied to any future discovery vaunted by advertising practitioners.

While the rotted-away portion of a consumptive's lungs can never be replaced, a considerable portion may be so destroyed and yet leave enough to sustain life, and even give no special inconvenience to the patient. But the decay must be stopped; then the tubercles will heal, and though their scars will remain to the dying day, life may be prolonged many years. No medicine can arrest this decay. Nature alone can cure; but to succeed must be aided by exercise, pure air, and good digestion. Though cases far gone, apparently without any chance of recovery, and even given up by able physicians, have been cured by active out-door exercise, plain, healthful food and pure air, the time to adopt these is at the first suspicion of any lung complaint. The sooner you begin the surer the cure, or the entire avoidance of consumption. For those already considerably enfeebled some caution may be advisable in adopting this change of habit. Don't overdo at first, beware of fatigue, but don't "coddle" yourself. If you house yourself up, if you make an invalid of yourself, you are doomed. The cough is really a useful process of nature for getting rid of diseased and contaminating matter; to check this by medicine is to pen up the very thing which will spread ulceration to the, as yet, healthy tissues.

A very common recommendation to consumptives is to try a sea voyage or a change of climate. The only cases where a sea voyage has proved beneficial were where the disease was in its early stages, and in such cases the great benefit resulted from the plain living and the active labor—the duties on shipboard being well calculated to exercise the muscles of the chest and to induce deep breathing. The benefits result from the seaman's occupation rather than from any influence of the sea air. Go "before the mast" if you go at all. During most of the time a passenger gets very little fresh air, and it is deemed doubtful if sea air, even in its purity, is beneficial to consumptives.

With the advocates of change of climate great variety of opinion seems to exist as to the most suitable locality. The West India Islands have been in great favor, but their climate, though balmy and delicious to the healthy, seems only to exert an enervating influence upon the already de-

bilitated. The South has been recommended, but so universally fatal have cases proved that the southern physicians have joined in advising cosnumptives to avoid this region. Minnesota was long considered the favored spot, and still more recently, Alaska. The air of Minnesota is remarkably pure, but whether from its rarity or the extreme coldness of the climate, it seems from experience to afford no safe hopes. It is not likely that a country like Alaska has any inducements.

Of course a resident in a decidedly consumptive locality *may* be benefited by a removal north, south. east, or west; and if a consumptive upon removal *anywhere* adopts improved habits of living, exercise, etc., he may recover, when he would have died at home under his former mode of living. What I wish to convey is the fact that there is little hope in mere climatic change for one who has allowed himself to be brought to the brink of the grave. There are undoubtedly those whose constitutions are not strong enough to withstand the rigors of our northern climate; these may find a more temperate one better suited to their strength, but the change should be made before the disease has a firm hold. Some are probably saved by sojourning during the *winter* in some one of the *dry*, healthful localities which are to be found scattered through many parts of the South. Such cases I believe exceptional—if the region is reasonably healthy, I believe home the best section for consumptives, as a rule. As large a proportion of cases of recovery at home have probably occurred as have occurred among those adopting a change of climate. We hear of the cures effected in certain localities, but often the fearful number of deaths which offset them are not mentioned.

It would seem well established that the place for curing consumption is just where the patient resides, excepting, of course, it be a damp or otherwise specially unfavorable location. Most of the benefits experienced in individual cases from changes were most likely due to changes in habits, modes of living, etc. A dry, healthy rural locality is doubtless preferable to the city, food, cooking, and other things being equal. The mountains are considered beneficial, the British troops in India when attacked with con-

sumption being sent away from the sea-coast to the mountainous inland districts.

Chopping wood, horseback riding, and rowing are all good; but the riding should be commenced in moderation and gradually increased each day, trotting being considered the best gait; rowing should be very cautiously done, as, if excessive, great harm will result, and its benefits are more available as a preventive than a cure. *All* exertion must be made with caution; no strain or exhaustion should be incurred. Walking, running, leaping and similar light exercises are beneficial. In walking, an erect position should be maintained, with the eyes raised to some object ahead slightly higher than the eyes. Corpulent individuals rarely have consumption, their exception being largely due to the erect position they maintain. Braces are objectionable, as they must press injuriously upon some part of the body, and have only a temporary effect in sustaining the wearer. Violent jerking back of the arms or thumping the chest are not beneficial.

Cold air is better than warm, but too sudden changes of temperature are bad. To avoid these, respirometers of various kinds are used. A handkerchief or vail folded several times answers better than any patented one. The object is to mingle the warm breath with the colder outside air, as both pass through the respirometer, so preventing sudden chills. Cold air, after being inspired by the lungs, expands with increased heat and distends the air cells. This is beneficial, and if after running a short distance the patient will keep his mouth shut and compel his breathing to be done through his nose, he will be aiding the expansion of his lungs and the filling out of the air-cells. A good exercise, where it does not occasion pain in the chest, is to extend yourself upon the floor, face downward, with the palms resting on the floor. Then raise your whole body, with the points of the toes resting on the floor, several times in succession by the muscles of the arms and chest. This exercise by sedentary persons a few times during the day, and at night before retiring and in the morning upon rising, would aid in warding off consumption.

The tendency of tight lacing to produce consumption is

sometimes underrated by those addicted to the practice, for lack of comprehension of the real facts. The compression rarely injures by actually squeezing the lungs so much as to prevent their holding enough air to support life. This would be almost impossible with healthy lungs, for there is ample excess over what is absolutely sufficient. But the trouble lies in preventing the *full* expansion of the lungs. Air is essential, and without it the cells begin to develop tubercles. These spread steadily, enervating more and more until consumption is fully developed. The victim for months or years may be unconscious of the danger. Even compression which produces no immediate discomfort may be sufficient to induce eventual disease.

CHAPTER XVIII.

PURIFYING THE BLOOD—FALLACIOUS THEORIES—SCROFULA, CANCER, ETC.

THE necessity of purifying the blood is loudly insisted upon by thousands of men, each one of whom, strangely, is fortunate enough to be the possessor of the sure and only preparation which will do this. Brandreth, the pill man, used to say (*not* in his advertisements), that if you advertised month after month that, to cure any ailment, it was absolutely necessary to drink a pint of beer each morning, the public would by and by believe it and drink the beer accordingly. The constant reiteration of the necessity of purifying the blood, and the equally strenuous assertion that this can only be done by this or that syrup, or this or that pill, have convinced thousands of both statements. Now, although purifying the blood is a good thing to do, you cannot do it in this way.

The great purifier of the blood is oxygen, and the way to take it is to breathe pure fresh air. The heart, with every beat, drives the blood through the arteries to every part of the body, and, taken up again by innumerable little

veins, it returns to the myriad of little blood-vessels in the lungs. The blood never comes in direct contact with the air, a membrane of the thinnest possible structure forming the air cells on the sides of which the blood-vessels are spread. Through this membrane, by what is known as the dialysis, the vitalizing principle of the air, oxygen, passes to the blood, while the carbonic acid and effete matter of the blood pass off with the next expiration of the breath.

This expired breath is impure, though bad breath is not always proof of impure blood. When the blood goes to the lungs it is dark colored, known as "black blood,"* and after this process of absorbing oxygen, becomes of a bright, sparkling red. The exhaled breath has lost its power of sustaining life, for if breathed again as it comes from the mouth, without admixture with other air, suffocation would result. It seems certain, therefore, that the proper way to purify the blood is to breathe pure air. Without so doing the blood can never be made pure, and unless purified it cannot perform its duty of nourishing and repairing the wastes of the system.

A most fruitful source of disease is bad air. The contagion resulting from inspiring the breath of those sick of certain diseases, or of the air which has absorbed the poison from their clothes, excrements, or bodies, is well known.

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* This same principle is exemplified in an experiment which may be readily made by any one curious about the subject. If there be left a mixture of alcohol and water in an uncorked bottle, the alcohol having a greater affinity, a greater liking for the air than the water has, begins at once to pass out of the bottle and mingle with the air of the room, as will be known by the odor of the apartment, and will continue to pass out until there is nothing left in the bottle but the water. But fill another bottle with a similar mixture, and place a thick membrane over the mouth; in a few days all the water will be gone, while the alcohol remains. Another illustration of this doctrine of chemical affinities is found in the experiments of Lewis of London, in the examination of the exterior of twenty-two thousand leaden coffins, and the contents of a large number in the church vaults of the British metropolis, showing "that nitrogen and carbonic acid gasses holding animal matter in suspension, unperceived, but steadily penetrate through, and escape from the pores of leaden coffins, and disappear in the air, so that by the end of fifty or one hundred years nothing but dry bones remain; and this escape may go on, though the coffins are uninjured."

More indirectly perhaps equal harm is done by general impurities in the air. The prevalence of scrofula in crowded cities is largely due to the filth contaminating the atmosphere. Consumption is induced or hastened in those predisposed, in many cases. The country is not free from the curse of bad air. Rotting fish on a fish-manured corn field, a miasmic swamp, or other source of foul odors may prove as deadly as the stifling air of a crowded tenement house.

Even where pure air is abundant thousands of persons insist on stinting themselves, often to an allowance barely sufficient to sustain life, sleeping in small rooms without ventilation, and with windows tightly closed, possibly adding "weather strips" to complete the exclusion of fresh air. Where two or more sleep in the one room it is specially important that there should be plenty of air, for another's breath is worse to breathe than one's own. Many diseases not commonly considered contagious may prove in a measure so where a person sleeps regularly with the sick one, and breathes the confined air of a close room. On this subject of pure air an excellent authority writes:

"Miss Nightingale has such faith in the healing and restorative powers of the air, that she makes a full and free supply of it, night and day, the first condition of successful hospital treatment. In the English hospitals the space allotted to each bed is twenty-one hundred cubic feet, and Miss Nightingale insists that this is not sufficient for a single night without constant change by ventilation. If this be so, what must be the effect of sleeping, as half the people in this country do, in little eight by ten bed-rooms, with the windows and doors tightly closed, and perhaps the heat of a furnace or stove for warmth besides, in the winter? The French hospitals provide for the complete renewal of the air of a sick room every hour. We sleep in about a thousand cubic feet of air for six or eight hours, without renewing it at all, and sometimes two or three persons in that confined space. The fetor of a chamber that has been thus occupied is a sufficient demonstration of the unfitness of exhausted and stale air to be received into the lungs; and the pallor, headache, and lassitude experienced in the morning by those who sleep in these close

rooms show very clearly that the repose which should have renewed the vital powers has only been the occasion of poisoning them. What wonder that the lungs, denied their natural aliment, and fed on poisonous malaria, refuse to perform their functions and go to premature decay! We have no donbt that this one sin against nature of sleeping in impure air is the great source of nearly all the lung diseases which sweep so many to early graves in what should be the bloom and vigor of life. The idea that the night air is hurtful is a mere prejudice. It is the dead air of our sleeping-rooms, laden with foul animal matter, that poisons us, corrupts our blood, and destroys our vitality."

Though the average amount of air used by a person's lungs in the course of twenty-four hours is about three hundred and eighty cubic feet, a room containing that amount will not sustain life in a person for one half that time; for with the expiration of the first breath the whole air of the room is in a slight measure contaminated, and long before all the air has actually been taken in by the lungs it has become so adulterated as to be entirely unfit to breathe. Were it not so, and were one able to breathe up every particle of air in a given space, even the Black Hole of Calcutta, whose horrors are a matter of history, would have sustained without special discomfort the hundred and forty-six persons confined there on the fatal night when but twenty-three of them escaped suffocation. Though we may not feel special inconvenience even when the air has become considerably vitiated, the harm is being done. We can become accustomed to a close atmosphere, be even unaware of its closeness unless we have an opportunity to contrast it suddenly with a pure one, but we feel the effects in headaches and other symptoms. Almost all schools, public buildings, theaters, churches, etc., furnish too limited a supply of fresh air. In schools the evil is specially to be avoided, for to children plenty of pure air is even more important than to grown persons. Physically and mentally they will suffer, and the youthful vitality, upon which the constitution must depend for building up, is impaired. When children become pale, languid, feverish and otherwise "out of sorts," let parents look to the nursery and school-

room for the possible cause. Children often suffer from impure air without noticing it particularly, or if they do, not being generally aware of its dangerous properties, may neglect speaking of it to their parents. There is increased regard paid now to schoolroom ventilation, but there are still many neglectful teachers and poisoned pupils.

As to purifying the blood, it would seem that dependence is best placed in obtaining plenty of fresh air. Many sufferers have been revived and restored by this means, and combined with cheerful employment, active out-door exercise I have faith in as a very powerful remedy. *Change* of air is often beneficial; for instance a change to mountain air by one living on the sea-coast, or to sea air by one residing in the interior or among mountains. Scrofula is popularly considered a disease of the blood, or resulting from its impurity; but there is a growing conviction among many of the best authorities that it is rather a debility of tissue; that is, that the tissues have not the necessary vigor to abstract the required sustenance from the blood. In scrofulous persons this debility may extend to the blood, which may be deficient in the nourishing property, but it is more a general trouble than a disease of the blood. Real scrofula appears to be beyond the power of medicines, which only act in one of two ways; they either diffuse the disease, causing the sores to appear on a large surface, or they concentrate it upon one point, perhaps driving it to heart, lungs, or stomach, where it fiercely attacks the structure and hastens death. I have no hope for the worst cases of scrofula, except perhaps temporary alleviation of their sufferings; but for slight manifestations, or a mere predisposition thereto, I believe in the power of pure air, exercise, and simple and nourishing food, to ward off the threatened disease. Though there is no reasonable ground for believing that scrofula when once developed can be cured, it may be warded off for an indefinite period even by those predisposed thereto, and the very means of so doing are those just mentioned.

Whether cancer is a result of impure blood is not known; indeed, it is a mystery to even the ablest physicians. There is no *cure*, though cancers may be cut out or burned out

with caustic. Even by these means it is difficult to exterminate them; but what are frequently termed cancers are not so, merely one or another species of sores easily cured, or likely to cure themselves if let alone. It is *these* that the advertising "cancer doctors" cure, after frightening the patient with startling stories of their dangerous character. Real cancers are extremely rare.

CHAPTER XIX.

THE BOWELS—NECESSITY OF THEIR PROPER ACTION—DANGERS OF PURGATIVE MEDICINES.

WHILE the proper action of the bowels is one of the most important requisites of good health, many persons defeat their own and nature's object by excessive attempts to "regulate." I have, in another chapter, shown the bad effects of depending on purgative medicines for overcoming a costive tendency; and there is danger, too, in checking slight cases of unusual looseness. One evacuation each day is the natural action. This should occur at nearly the same hour every day, and will, if one makes a practice of attending to the matter at the specified time. Probably the best time is immediately after breakfast, as then the pressure of the new meal aids in forcing the accumulations of the bowels onward; while time has been allowed the food of the preceding day to part with its nutriment.

Too little attention is paid to this regularity of hour. By it regularity is encouraged, and the bowels will themselves often overcome slight obstructions which they would not otherwise do. Where no special time is observed it is apt to be put off, the bowels are less prompt to act, and straining is often induced. After the nutriment has been absorbed from the dissolved and prepared food from the stomach, the bowels go on absorbing the liquid portion of the waste matter if it is allowed to remain beyond the

natural time; this is the reason of extreme hardness and dryness of the stools in such cases; they becoming more and more so until they resist the power of the muscles of the rectum, remaining therein and causing stoppage, and even in some cases rupture of the anal passage. Diarrhœa is often only a remedy of nature for getting rid of indigestible food or foreign substances. In such cases, to stop it by powerful astringent medicines is forcing the bowels to retain what it is highly important they should get rid of. The bowels when such foreign or indigestible substance finds its way therein, by a natural provision, are flooded with water to wash away the impediment; this forms the diarrhœa. Should the looseness not be accompanied by severe pain, not exceed five or six evacuations a day, and lessening in a day or two, it is best to merely avoid laxative articles of food and leave the matter to regulate itself.

Where the bowels have not been accustomed to regular action such may be induced (provided there be no severe complaint) by the following method: Should they refuse to act without straining, after breakfast, do not attempt to force them, as injury, even rupture, may result; but arrange a walk or moderate manual work for an hour or two exercising sufficiently to maintain the skin moist. During this time as much cold water as is desired may be drank. When the exercise is finished, if in winter, go to a warm room, or before a good fire; if in summer, to a sheltered place free from draughts. Eat no meals until an evacuasion takes place, or if any food at all, nothing but a baked apple, bread and butter, or dry toast in very small quantity. The next morning quietly remain in the house until the time for a passage arrives; if you do not succeed, then repeat the proceedings of the previous day.

For maintaining regular action the food should be partly made up of fresh fruits, and such coarse food as hominy, corn bread, Graham bread, and the like. Boiled turnips, and baked apples are excellent to prevent constipation. In lieu of the purgative medicines usually employed, an efficacious and innocent substitute will be found, where dieting is not sufficient, in injections of water, not sufficiently cold to cause any chilly sensation. This is often useful in the case of

children who cannot carry out the foregoing rules of diet, exercise, etc.

Where the action is more frequent than twice a day a diet of boiled rice, farina, boiled milk and preparations of corn starch, will usually be sufficient to restrain the excess. In more severe cases remaining abed, or if the patient must be on his feet, using a bandage of thick flannel twelve or fourteen inches wide tightly bound over the abdomen, is recommended. Drink of all kinds should be avoided; but pounded ice may be eaten. Exercise should be very moderate when evacuations of the bowels are thin or watery.

CHAPTER XX.

THE URINE—FALSE ALARMS—HOW TO CURE SUPPRESSION OF URINE AND NON-RETENTION OF URINE.

VERY serious injury is frequently done by a failure to attend to the passage of urine when nature demands its voidance. So important is this, and so severe are the possible evils resulting from persistent disregard, that I believe a chapter may well be devoted to the subject. This is the more desirable as certain practitioners of ill repute have misrepresented many facts connected therewith, with a view of arousing alarm and thereby securing patients. First of all, the primary object of the urine is to carry off the waste liquids of the system; therefore its quantity and quality will vary from time to time with the varying substances taken into the system in the form of food and drink. In warm weather, when the individual perspires freely, there may be but a trifling quantity of urine passed, notwithstanding he may have drank considerable. In winter, the bulk of the water taken into the stomach eventually finds its way to the urinary organs.

Great stress is laid on the significance of sediment or cloudy substances in the urine, by certain parties. The "brick dust" deposit indicates an excessive amount of lime

in the system; but the fact that it passes off in the urine is a favorable one rather than otherwise. If suppressed, it is liable to cause the formation of stone in the bladder; its being washed away in the urine aids in preventing this calamity. The substance frequently found floating on the surface of the urine after it has stood awhile, or mixing with it giving it a cloudy appearance, is in most cases a perfectly natural secretion, having nothing whatever to do with the organs of *generation*, though insidiously represented to be the seminal fluid, and indicating extreme debility of the sexual organism. This secretion is the product of the mucous follicles which line the urethral walls, and is often mixed with perfectly healthy urine. It is of no more moment than the saliva in the mouth.

There is great sympathy between the urinary and generative organs, and abuses of the one tend to induce weakness of the other. But urinary weakness may often be constitutional, and is frequent in children. Wetting the bed is often treated as a vice, as though the child delighted in the act. The fact that it generally occurs during sleep would alone indicate that it is a matter beyond his immediate control. If not accompanied by self abuse a little regulation of the drink toward bedtime will in most cases cure the trouble. Such a thing ought not to arouse special alarm, if right measures are adopted to overcome it.

In these cases mild diuretic medicines may be useful, but I would not recommend them. Medicine is rarely needed, and may be administered injudiciously by inexperienced parents or nurses. It is better to trust to nature. Let the supper be light and dry, never salty. Give no drink in the evening, and above all require the patient to pass water immediately before retiring, if there is any in the bladder—also on arising in the morhing. This will prevent much fluid accumulating. The trouble often arises from not passing water when inclination demands. It is impossible to set down as definite rules for this as for the evacuation of the bowels, but it is dangerous to neglect it. Neglect, however, is almost universal. Business men go from morning till night, week after week; travelers restrain themselves till the bladder becomes distended almost to burst-

ing, and visitors in strange places will endure extreme misery and constitutional injury perhaps, from excessive delicacy. Persons on excursions or picnic parties, or in similar situations, should be mindful of the comfort of their companions, and give them an opportunity of leaving the company, if desirous, without making that fact conspicuous. Unless the bladder is emptied at proper periods, not only is inconvenience felt, but permanent injury may result. If kept unnaturally distended it becomes weakened, but this is not all, the secretion of the urine must stop or it must find a vent either natural or otherwise, so it has been known in extreme cases to pass from the ears, nose, eyes, or in other unnatural ways. These are not common results, but it can never be restrained when it plainly calls for voidance without bad results. One's own desires are the best guide, but it is well to have *some* regular times for attending to this matter.

In old age the necessity of passing water becomes more frequent, and the aged commonly require to rise at least once during the night for that purpose. Great barbarity, doubtless unintentional, is practiced now and then in schools, in preventing children attending to the demands of nature. To deprive them of recess is a punishment liable to do vast mischief, and to prevent a pupil leaving the room, even at unusual times, may be a grave error. I know teachers are often imposed upon; but, on the other hand, I know timid scholars have refrained from asking, when absolutely essential to health and comfort, for fear of reproof.

Where the secretion of the urine has become small, or the passage thereof painful, from habits of neglect, fruits are beneficial, and such soothing drinks as flaxseed tea or boiled slippery elm. One of the best and pleasantest promoters of the secretion is watermelon. This fruit agrees with, and is highly relished by, nearly all persons, and in reasonable quantity, fresh and ripe, can do no harm, unless the person has that strange and unaccountable antipathy for it which is sometimes manifested, in individual cases, toward the commonest articles of food. Such idiosyncracies are not common, however.

CHAPTER XXI.

THE TRANSITION STAGE—CHILDHOOD AND MATURITY.

ALMOST important period in the lives of the young is the time in which they are passing from childhood into maturity, in which the person is neither child nor adult, but in a state of transition from the one to the other. This seems to be but little understood—certainly does not receive the attention its importance warrants. The constitutional disturbances which occur during this period need give no cause for alarm; but on the course which the child then takes the whole future turns.

This constitutional change is not manifested at the same age in all subjects, but may be looked for at about the age of twelve years. With some the change is scarcely perceptible; with others there appears to be complete confusion of moral and mental faculties. Gentle and submissive children may become turbulent and fractious, while sweetness of temper may be changed to extreme irritability. The most unaccountable freaks in conduct and disposition may appear. In boys there is a disposition toward lawlessness, noise, a tendency to break loose from parental authority, a seeming carelessness of family ties and affections, wild ideas and extravagant dreams of impossible careers. Where there is a strong animal temperament, great bodily force being developed, rapid growth and development, these symptoms are usually the most severe. The outward symptoms of those of more quiet temperament, where the mental predominates over the physical, are not so striking, but require equal care and skill in their management.

While it would be a mistake to relinquish the child to its own devices at this time, it should be remembered that these manifestations are in a measure beyond its own responsibility and control. They are indeed, in their most extravagant forms, a near approach to a mild form of insanity, and in rare cases a form of insanity is actually developed. On this point we have the testimony of Dr. Ray, a well known writer on the medical jurisprudence of insanity. He says:

"That the evolution of the sexual functions is very often attended by more or less constitutional disturbance, especially in the female sex, is now a well established physiological truth. The shock seems to be felt chiefly by the nervous system, which experiences almost every form of irritation, varying in severity from the simplest hysteric symptoms to tetanus, St. Vitus' dance, and epilepsy. And when we bear in mind, also, that general mania is sometimes produced by this great physiological change, it cannot be deemed an extraordinary fact that partial mania, exciting to acts of incendiarism or murder, should be one of its effects. Still, we would not be understood as favoring the opinion that every youth between the age of twelve or fifteen, guilty of incendiarism, is a subject of pyromania. The general principle of the power of the change in question to produce this disorder is not alone sufficient. It is necessary to trace the connection between them in the particular case, and unless this can be done we have no right to claim the benefit of a general truth."

Cases of this kind are extremely rare; but any state capable, in any instance, of so powerful an effect upon the mind cannot be passed over as trifling. The transition period is a natural one; these troubles are the result of some interference with the natural development, or wrong guidance. The cases of malformation, or irregular development, are not frequent; and in the rare instances where they do occur and give rise to these troubles, competent professional advice should be obtained, as they are not fit subjects for self treatment. The object of this chapter is not to arouse any fears of this description, which would be groundless in nearly every individual, but to point out more common evils. It is the unnatural modes of living to which most of these are to be attributed. High feeding; impairment of the digestive powers by irregular eating and improper food, like pastry, cake, spices, and rich gravies; stimulation of the mind by over study or exciting reading; a state of morbid irritableness; and the influence of lewd books. As it will be the mother's province to guide at this time, especially in the case of young girls, I cannot do better, I think, than give an extract from one of

Mrs. Harriet Beecher Stowe's Letters to Mothers, which gives a woman's suggestions for the guidance of women. She says:

"As this is the period when the great sexual change, which constitutes the child man or woman, takes place, it is one in which curiosity is apt to be aroused upon that mysterious subject; and it is to be regretted that for one good, plain, sincere instructor, who tells the child clear and noble truths in chaste and modest language, there are twenty of the devil's angels always ready to fill the rising curiosity of youth with dangerous and fatal images. There is a series of literature prepared expressly with reference to this work of corruption that parents or teachers seldom see. Such pamphlets are sometimes to be found lying like serpents, concealed in the darkest corners of a schoolboy's room. Often a boy, outwardly quiet, who makes no noise and no disorder, is growing weak and thin, while he lies on his bed secretly gloating over this poison literature, which blights the poor victim's life in its very morning. Perhaps the father and the mother of this very boy were too delicate to be able to explain to him, in safe and plain terms, those mysteries of his being into which he is ignorantly passing, and therefore the devil, who is not embarrassed by delicacy, takes the tuition of him.

"The young girl, at this stage of life, is liable to many dangers. Life is often sacrificed by these poor young creatures, in simple ignorance of the risks they run. If life be spared, the foundation is often laid of life-long disorders of the nervous system, which embitter the peace and shroud all their future days with melancholy. Such are the evils which come from ignorance and mismanagement in this period. Many a healthy, happy girl passes through this crisis into a nervous, complaining woman.

"We have just indicated the dangers of this transition stage, to suggest to those who have the care of young children a careful preparation beforehand, to understand this period of life, and thus enable themselves to treat it wisely. A mother well instructed and prepared might, on the first appearance of symptoms which mark a constitutional disturbance, say to a child: 'You are now about to pass

through an important and critical period of your life. You are growing rapidly; your brain and nervous system, being taxed to supply this growth, are in a highly excitable state. You may consequently feel more irritable, and perhaps often suffer from very disagreeable feelings; but if you are careful to keep up self control, if you attend strictly to the rules of health, in a year or two these troubles will pass away, and you will be a happy, healthy man or woman.'

"The necessity of self control must be mildly, but firmly, enforced. If a young girl is tempted to give way to hysterical symptoms in any of their various forms, or a boy to morbid appetites or impulses, which seem to them at the time irresistible, the parent should try to make them understand how all-important it is, just at this critical era, to establish a firm habit of self government, and never to allow one's self to do an unreasonable thing merely because one feels an unaccountable impulse to do it. Multitudes of boys fall into fatal habits of intemperance, or other destructive vices, through the unguided and ill understood cravings of this period of life. They are away from home at boarding schools, where there is no care for their peculiar wants; where the food is ill adapted; where the only thing thought of is to press up this already taxed brain to a certain amount of study. Under these circumstances, they seize wildly on tobacco, or the more dreadful stimulus of alcohol, to allay these feverish cravings, and thus, out of ignorance, the ruin of a whole life is wrought.

"It is hoped these few hints may turn the thoughts and inquiries of mothers to this subject. It is one that needs a volume, and an article like this can only indicate an outline, which mothers must wisely fill out. It is the mother's business, like Mary, to keep all these things and ponder them in her heart." The rearing of childhood to the seventh year is full of care and anxiety. Teething, and the various diseases of infancy, such as measles, mumps, whooping cough, scarlet fever, etc., all bring their dangers. But when these are all past, and the child seems at last to have cast firm roots into life, and to have become a fixture in this mortal state, then comes this last and severest trial. If this period be passed safely, the human being is then,

to all appearance, well established for a prosperous life. "One remark should be added: While *religion* should be the great moving force relied on in carrying the child through his early education, it is particularly important to guard against anything of a driving or stringent religious action, at any one particular time during the delicate period we speak of. All the religious influences used should be calm, quiet, gentle, appealing mainly to the reason and to the affections. The child should never be driven into states of religious crises, violently excited, or forced to special religious exercises, by special and pressing urgency, such as often occurs in time of revival. The great evil of such periods is, that they come in collision with a certain great law which regulates the action of all brain forces, and invariably punishes any over-action of them. Any over-strain of the brain or nervous system, with regard to a particular subject, brings on a reaction of the mind, by which that subject is regarded with dislike and sometimes with aversion, amounting to horror. Many young people have contracted a permanent habit of dislike to religion, by an early over-strain upon their moral faculties in this important period of life. This consideration cannot be too seriously pondered by both parents and teachers."

The subject of self abuse—delicately, but earnestly, hinted at in the above—is fully treated in another chapter. I have also aimed to show, in yet another chapter, the serious evils resulting from the reading of bad books. Mrs. Stowe has pointed out many things it is important to observe; to these it is well to add, that the bodily health and vigor should be carefully looked to. During the years from twelve to sixteen, a good stock of health and physical vigor should be accumulated. In the case of girls, especially, it is too often the habit to press them forward in their studies till the brain seems almost ready to give way beneath the pressure; to give them little exercise; allow them to stuff their stomach with candy, sweetsmeats and pastry, and their heads with unnatural and insipid (or worse) novels; with often insufficient sleep. What they specially need is plenty of sleep, simple nourishing food, ample exercise in fresh open air and mental exertion to

whatever extent is not painful. Care should be taken in the selection of reading matter, as there is often a morbid craving for high-wrought fiction, especially exciting now.

With boys the main danger at this period is the formation of bad habits. It is mainly those with unduly active brains, the bright ones of the school, ambitious, full of nervous energy, and generally of delicate build, who are liable to exert their brains too much in the way of study. What boys, especially city ones, need most at this age is occupation, work. Not mere drudgery, disagreeable manual tasks, but interesting labors which will develop their powers. Forced to drudge, he may acquire such a distaste for work as to become a confirmed shirk and loafer for life. With no object but to "kill time," he will be as badly off. Give him a tool box, printing press, garden, or whatever he seems to take to most naturally, as a part of his play; intrust him with responsibilities and duties within his capacity, and which will interest him and arouse his self-respect. He is apt to be sensitive about his "manhood," fearful of being thought "childish," show him your willingness to treat him as a man so far as he shows himself manly. Thus he will work off the surplus nervous energy which would otherwise become morbid, and keep his mind actively, healthfully, employed, checking much of the desire for mere rowdyish demonstrations, or impurities of thought or action.

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* Dr. I. Ray says: "To prove the existence of pyromania, produced by the sexual evolution, the age should correspond with that of puberty, which is between twelve and fifteen. Sometimes, however, it may occur, especially in females, as early as the eleventh or tenth year, and, therefore, if the symptoms are well marked, we have a right to attribute them to this cause. * * * These general signs are either a rapid increase of stature, or a less growth and sexual development than is common at the age of the individual, an unusual lassitude and sense of weight and pain in the limbs; glandular swellings; cutaneous eruptions, &c."

Patients themselves are not, however, the proper persons to act on these symptoms. They will be apt to imagine they have them when really not so, and what might be mistaken for one or another symptom may actually have no connection in that individual case.

CHAPTER XXII.

DEMORALIZING LITERATURE—MENTAL AND PHYSICAL EVILS OF IMPURE READING.

EVEN those persons who have endeavored to repress the sale of lewd publications or to restrain the young from their perusal, I believe, generally consider the injury to lie in their influence on the moral nature only. I think it can be shown that there is, in addition to this, a positive and serious *physical* injury directly resulting from the reading of these and other pernicious works to which I shall allude to presently.

In human beings it was designed that the sexual passion should be held in control by the higher moral sentiments. The reading of works in which lust, either openly or covertly, is the charm, stimulates this passion in the reader until it becomes the ruling passion. The extent to which one may become the slave to this feeling (even though he commits no outward act of impurity) is almost beyond belief. His whole mind seems only a repository for vulgarisms and indelicacies. He fairly revels in everything which can conjure up impure thoughts; nothing that he can distort into an image or sentiment of indelicacy escapes him From being at first merely an excessive and unnatural excitement of a natural feeling, it becomes a morbid love for mere nastiness; the mind, debased by degrees, loses its healthful action and longs for whatever is filthy, just as a diseased appetite may hanker for putrid meat or substances at which a stomach in natural condition would revolt. To such a degree can this degradation extend, that among other choice articles advertised in the circular of a certain dealer in "fancy articles," are "snuff boxes in the form of human excrement!" That these should have been invented as well as other articles enumerated in the circular about on a par with them, is proof that there are persons who appreciate and patronize them. No doubt such foul minded beings consider such an article an achievement of rare humor!

Should good counsels or the instincts of a natural delicacy rescue the victim before this degradation is reached, he will find it hard to totally banish the thoughts and images he has permitted to gain lodgment in his memory. One of the ablest and most exemplary ministers of a neighboring city, in a recent earnest exhortation to young men to purity of thought as well as action, instanced his own experience as a warning. He had been taught by a companion, when a young boy, two stanzas of a vulgar song, of which he then scarcely understood the purport. But those verses clung to his remembrance all his life, though other things learned at that age had passed entirely from his recollection. Though often baffled to remember the wording of a text or hymn, these lines he could have repeated at any moment. They haunted him, intruding upon his thoughts when least expected, when least appropriate. Boys, you may think lightly of the coarse jests, the vulgar rhymes you now pick up, but you may one day loathe them and despise yourself for their possession, should you escape the worse fate of a debasement so thorough that you will have no self respect left to upbraid you.

As to the effects of bad books upon the bodily health, it is beyond question that lascivious thoughts, whether resulting from impure reading, sight of indelicate pictures, or whatever cause, produces an unnatural excitement of the genital organs. This sexual desire, so produced, is a powerful provocative of self abuse, but even should the individual have sufficient self-command to restrain this impulse he will not entirely escape injury. All excitement of this kind causes an extra flow of blood to the genital organs. This stimulates the secretions, which not being naturally demanded in these cases only serve as an injurious excitant, promoting further mental disturbance and a new accumulation of blood. Every such accession of blood to the parts is a form of congestion, not usually very dangerous, in most cases removed by the resumption of pure thoughts, but where erotic fancies rage with but slight intermission, these congestions and the unnatural stimulation of the sexual organs, do have bad effects. How serious these are will doubtless depend measurably upon the constitution of each individual, being

greatest where the nervous susceptibility is keenest. Excessive excitement in any part is always followed by weakness. In these cases not only are the organs themselves weakened, but the whole nervous system suffers.

Allowing the thoughts to dwell excessively on any subject is directly injurious to the mind. With thoughts connected with the sexual function this is particularly true, as no other emotion can so completely absorb attention and render the mind so entirely subject to its damnation. This mental sensuality is a bar to the success of thousands of young men. While there may be instances of the fastest-minded men achieving wealth and power, there is nothing to prove that they would not have been even more successful had their minds been free from this incubus; while many examples might be given of the genius, talent, and brilliant prospects blighted by this mere mental view. During the war in the South, among the model regiments was one from Ohio, composed principally of young men. Not only did they win laurels upon the battle-field, endure cheerfully the weary marches, but in all those little details which go to make up true soldiers and gentlemen, they seemed perfect. There came a change so sudden that the colonel imagined he could detect the very day when it commenced. Ambition, spirit, and energy seemed to have deserted the regiment. The men became inattentive to their duties neglectful of their appearance and even personal cleanliness, and were rapidly losing that prestige which had once been so dear to their hearts. Investigation showed that on the very day which the colonel had mentally determined on as the date of the demoralization commencing, a quantity of obscene books had been introduced into camp. There was no other apparent cause, and on this being removed the regiment once more recovered its moral.

It is not the glaringly indecent works which are alone productive of injury. One who would turn with disgust from these will often be inveigled into the downward path by those books, wherein the immoralities or excitants are in a measure veiled. The latter are generally the productions of abler writers than the former, consequently more skillfully act on the passions, while the slight screen of affected

morality only serves to make them more terribly seductive. It will not do to interdict merely fictitious. So far as this unhealthful excitement is concerned it is of no consequence whatever, it is provoked by accounts of imaginary or actual facts. The Bible itself may be wrested to minister to this gratification, while certain police records, and the highly-wrought accounts of the criminal journals, as well as some others which industriously cull all exciting facts, exert a wide-spread and insidious demoralizing influence.

A prominent professor in a leading medical college has recorded his opinion that seeing a ballet performance is in some cases as bad as an act of masturbation. If the effect of such an exhibition is the promotion of sexual excitement, that performance is immoral and injurious; it is immaterial whether it be in an opera house or a low music hall. Whenever statuary, or other productions of art excite feelings of disgust or lasciviousness to those persons, they are impure and to be avoided, though to others they may be void of offense.

CHAPTER XXIII.

SNARES FOR THE YOUNG—POWER OF THE IMAGINATION—DISTORTIONS OF TRUTH IN BOGUS MEDICAL BOOKS.

THAT class of works so extensively advertised under various seductive titles, such as "Facts for the Feeble," "Marriage Guide," "Book of Nature," and the like, are not only all open to the grave objection pointed out in the preceding chapter, of causing an unnatural and injurious sexual excitement, but to others of perhaps even greater importance. They nearly all purport to give information concerning disorders of the sexual system, promising in their advertisements to teach the way to speedy and certain cure. This cure the reader finds on perusing the book to be either by consulting the person in whose interest the book is issued, or buying some preparation which he

has for sale. Now, with all the pretence of philanthropy, the real object is to make money by the publication of these books. Considering that many are sold at a price less than the cost of the paper alone, others given away to all applicants, and postage paid in addition, and even when a large price is charged the advertising bills often overbalance the receipts, how is the profit made? By the fees for consultation or the sale of medicine.

To those unfamiliar with the character of these advertisers, and with the real nature of the diseases they intend to heal, all this seems fair and reasonable. In reality it is one of the most infernal swindles on the face of this earth. It is not mere robbery—it is sometimes murder. The object is to make as large a proportion as possible of the readers of these books come to the practitioners advertised therein. Without attempting to detail all the maneuvers of these charlatans, I may say, in brief, that the plan is, with slight variation, as follows: Lascivious pictures, or anatomical ones, which to his eyes serve as well, excite the reader's passions, while the descriptions of the organs and their functions, and the main matter of the book are all concocted with the same view. Then the evils of masturbation are dwelt on, and then the strong point, spermatorrhœa, is introduced.

In treating this subject every imaginable symptom—which, even if they ever accompany this disease is equally characteristic of a score of others, and affords no safe test—is described as indicating fearful debility. Appearances of the urine, one or another of which occur in nearly all urine, are specially indicated as gravely important. The symptoms of no particular importance are always the ones selected; these can be rarely remedied, the real dangers are not spoken of; if known to the quack he does not care to point out anything he would find troublesome to treat.

In its appropriate place I trust I have shown clearly the nature of these ailments and their proper treatment. The reader can then see for himself how glaring is the perversion of the truth in these books, and how the treatment these men propose may be not only of no service but often a positive injury, and their victims seeing certain symptoms

removed which they are taught to consider all-important, may be deluding themselves with the thought that they are cured, when in reality they are much worse off than before. Or failing to have these appearances checked, for reasons which the reader will find elsewhere, utterly needless despair may result, and further waste of time and money upon still more pretentious quacks, with, perhaps, the final refuge, suicide. And perhaps nothing ailed the victim more serious than would be a cold in the head! These books themselves may produce some of the "symptoms" which they ascribe to spermatorrhœa, dreams and emissions, for instance.

There is an objection which applies not alone to empirical publications, but to the very best medical works, in the hands of non-professional readers. Few persons can read details of the symptoms of any disease without imagining to a greater or less degree that they themselves have those symptoms. Cases are recorded of persons remarkably slim actually fancying themselves bloated up with dropsy.* One case is mentioned where the individual could not even hear a dream named without thinking himself afflicted with it. Medical students, as an almost universal rule, fancy themselves subject to half the different diseases to which they come in succession in their studies. This is the great objection to works designed for domestic treatment. Even when prepared in good faith, the imagination and inexperience of an amateur unfit him to administer powerful medicines or to decide on the real character of the disease. While such works are sometimes useful in emergencies when a physician or surgeon cannot be obtained, there are few capable of using them understandingly as a regular thing. Works on general health, wherein no medical prescriptions are given, are of course not open to this objection. Those on any special disease, whether standard works or not, have the objection that they are liable to excite unfounded fears. It is possible that this little volume is not entirely free from this objection, though I have striven to

* This is more correctly perhaps due to a monomanical notion, on a par with those cases where the patient fancies his legs made of glass or butter, or that his head is wrong side before, but they all illustrate though in exaggerated form the action of the imagination.

make all so plain and simple, to avoid all needless details of symptoms, and to prevent any possible doubt or misunderstanding on any point. There is, however, less danger here than were the subjects such as required powerful medicines or specially skillful treatment. While the courses I point out are among the most effective and speedy, they can never do harm; there is no risk of mistakes, for the remedies given in the appropriate places in this volume are sure to improve the general health, and wherever there is actually any sexual debility these are the best.

CHAPTER XXIV.

SELF ABUSE OR MASTRUBATION.

OF all debilitating influences there is probably none which equals in extent or fearful consequences the pernicious practice of masturbation or self abuse. This consists in applying friction, with the hand or otherwise, to the sexual organs, and is practiced by both sexes, though in by far the greater proportion of cases by the male. It is difficult to over-estimate the injury done to the health, though in some of the *details* certain parties representing themselves as physicians, have so mixed up fact with friction as to greatly befog the readers of these so-called medical works.

As there are many erroneous notions held by even intelligent, well educated persons, it may be well to give in brief here a simple statement of the truth. In the first place the practice alluded to is much more common than most persons are aware of. Secondly, it is often begun at an age which would seem incredible if not vouched for by medical authority, recognized as among the highest. There is, indeed, recorded in at least one standard professional work a case where a mere infant, too young even to indulge himself, was "quieted" by a resort to this device by an ignorant nurse. The babe began to grow feeble and wan; the

physician suspected the cause from certain symptoms, questioned the nurse and discovered the truth. This is not an ordinary case, but children are liable at almost any age to be taught this practice by companions, servants, or may even be led to it accidentally through a desire to relieve a temporary itching. These facts it is important to impress upon parents and teachers. No child is too good or too pure to be led into this snare, and for any parent to deny the *possibility* of his child doing so, is worse than foolish —it is a sin. The child errs ignorantly; it is the parent's duty to prevent him; and this can only be done by forewarning him. I do not mean to say that he need be told everything about the sexual organism—he would probably not comprehend it—but he must be told something of the effects of such indulgence.

The only sure and safe method of doing this is to talk kindly and plainly to the child, induce him to confide fully to you. If you have any suspicion that he is addicted to the practice state your suspicion, and then urge him to avoid it; stating that it will reduce his strength and make him sickly. Do not treat his act as a criminal one; it is really a disease, as much as wetting the bed; and by the way, the statement that self abuse will weaken his organs and tend to cause his wetting the bed, will often prove the most powerful argument with a child. Punishment or "shaming" is rarely effective; it only prevents his seeking your sympathy and guidance, and the habit can be indulged in despite your utmost precautions.

On another point it is well to utter a note of warning. Among boys especially there is a notion prevalent that *while young* they can practice masturbation with impunity; that the evil results they have heard of are only produced after the individual has reached maturity, and that the danger is in the loss of semen. Consequently they persist in the indulgence with the firm intention of quitting it when they reach an age at which the semen begins to be secreted.

There are two very grave errors in this. As I shall show presently they are, with every commission of the act, doing an injury to their health, and as manhood approaches they will find themselves more and more the slaves of the habit.

with less and less energy to overcome the increased intensity of their passion.

Throughout our bodies extend a system of nerves communicating with the brain. By these nerves is telegraphed, as it were, every such sensation as heat, cold, pressure, etc., produced by causes acting on any part of the body. Through the medium of the nerves, too, every voluntary motion we make is directed by the brain. So intimate is this connection of mind and body that you can take a perfectly sane man and convert him into a raving maniac by merely tickling the soles of his feet with a feather. The nervous connection of the brain with the sexual organs is more intimate than with any other portion of our bodies, and to this is due the greatest evil resulting from masturbation. Friction applied to the penis will produce insanity much quicker than tickling the feet.

Every faculty of the mind is impaired by masturbation, and this loss of mental vigor is greatest in the young. In early life the mental powers are in process of development and masturbation exhausts their vitality, deadens them. The effects of this unnatural nervous excitement extend to the body as well as the brain; may result in weakness, stunted growth, and defective physical development, or premature wasting away and death.

Mind, I do not say that these results will follow every case of masturbation. A vigorous constitution may resist in a measure, but no constitution can fail to be impaired to some extent. It is not safe to indulge at all; there is comparatively little desire ever to do this the first time, and this desire grows with every gratification until it becomes irresistible, and the victim with his energy and will exhausted by the very act, yields to the fatal impulse though he may have learned the fate with which it threatens him.

The effects are not always immediately perceptible; the actual loss of physical or mental vigor can be told in the milder cases only by comparison with what power *would* have been possessed had the practice not been indulged in, but it is safe to say that every single indulgence has really some bad effect.

To every boy indulging *at all* in this habit I have one

word of advice—Stop. Stop *now*. When next you feel the inclination take up this book, and then call up all your will to stop. If you *cannot* stop the practice now while your attention is specially aroused, there is no probability that you ever will. It is very easy to make good resolutions immediately after the act when the passion is succeeded by exhaustion and depression, but resolutions made then are of little avail when the passion again seizes you, and every time the passion will be stronger and and your resistance weaker But if you have failed heretofore, if resolutions have been broken "just this once" over and over again, as you value health and happiness, I entreat you to try once more. It is your only hope, *you* must effect the cure, if you will not discontinue the practice *entirely*, there is no help for you. No medicine on earth can avail against the results of your own indulgence.

The application of cold water to the parts, rubbing the body with the palms of the hands to promote an even circulation of the blood, or warming the feet, will allay the desire for indulgence by diffusing the blood in better proportion throughout the system. Masturbation causes an undue flow of blood to the organs, and this in turn excites them and causes a desire for further indulgence. It is important, too, to avoid all other exciting causes, such as excessively warm clothing, or rough or irritating clothing, about the parts; rich or stimulating food, as pastry, cake, meat in excess, spices, spirituous or malt liquors; and all sensuous thoughts or reading.

Though no medicine can counteract the evils while the practice is continued, yet, as the desire is largely due to heat at the organs, aid in resisting may be derived from whatever will reduce the heat and excitement. Some medicines will do so, but the same object can be much more certainly and safely attained by means which any one can apply, and which always do good and never harm.

A good plan is to have a basin of cold water in the sleeping apartment, and with a sponge or cloth bathe the organs and the adjacent parts before going to bed, wiping gently with a soft towel. Whenever the desire comes on this may be repeated with advantage, the warmth and glow, pro-

duced as a reaction from the bathing, does not appear to excite, on the contrary all the feverishness and inflammation is soon subdued by the bathing. Another way to apply the water is by using a hip bath, or by stooping over a basin or other suitable vessel and dashing the cold water upon the person. Strict cleanliness is useful in reducing all feverishness, so a weekly warm bath will be a beneficial addition to the treatment. Regularity in stooling and urinating should be observed; costiveness having an injurious effect, and excess of water in the bladder always proving an excitant. The proper courses for overcoming any difficulty of these evacuations will be found in foregoing chapters.

As the act may be committed in a half unconscious state, between sleeping and waking, the patient should strive to sleep soundly and wake promptly; promoted by eating light suppers, exercise and interesting employment in the day time, moderate bed covering, and prompt rising on waking in the morning.

As I shall elsewhere speak fully of the emissions which are the other important results of self abuse, I need not dwell upon them here. Whether or not these emissions accompany your indulgence is of little moment so far as the necessity of breaking off the habit is concerned. Their special effects will be the subject of another chapter.

CHAPTER XXV.

"LOSSES"—SEMINAL WEAKNESS—SPERMATORRHŒA OR SEMINAL WEAKNESS—FULL DETAILS FOR SELF TREATMENT—SOME FALLACIES EXPOSED.

SOME confusion has resulted from the fact that the term "spermatorrhœa" is by some writers applied to *all* emissions of the seminal fluid other than in the act of copulation, while others restrict it to cases of frequent emissions with resulting debility. So the best authorities

may seemingly differ in their estimation of the character and effects of spermatorrhœa, owing to the difference in range each gives the word. So much falsehood has been promulgated regarding this subject by designing persons, and so important is it to every youth approaching manhood to fully understand the real nature of these phenomena of the seminal secretion that I briefly refer thereto before touching the subject of self cure for those needing treatment.

In many animals the secretion of semen occurs only at particular periods, and with them the power of performing the sexual act, and of propagating their species, is restricted to these limited seasons. In man the fluid can be secreted at any time, unless the organs have lost their power from abuse, and this secretion and ejectment of the semen is the culminating part of the act of copulation, without which the act is incomplete, unnatural, and productive of injury, as will be shown in a subsequent page. The semen is secreted or formed *during* the act; it does not constantly accumulate as is supposed by some persons, requiring to be got rid of either in the marriage relation or by some other mode; hence the folly of all pleas for illicit indulgence on this account. The *power* to secrete the fluid exists constantly in all healthy males who have reached maturity, but it is not essential that a drop be actually secreted for years, and the vulgar notions of calamities to the organs from an inevitable accumulation of the semen in virtuous unmarried men is unfounded. There is no *physical necessity* for either for the "losses" or for illicit indulgence. Some unmarried men go for years without either and experience no ill effects.

Strictly speaking, therefore, all secretions and emissions of the seminal fluid, otherwise than in the act of copulation are unnatural, therefore to all such the name spermatorrhœa may properly apply, though in such cases there must be understood to be two forms of the disease—the one comparatively unimportant and innocent, and the other, or excess of the first, one of importance and danger. There are many things not strictly according with a perfect state of health, but which are yet so easily induced and so trifling in

their results as to be of little moment, slight colds, transient headaches, and the like are liable to occur, not without cause, but on slight provocation; so an emission of semen may occur from a cold, inducing a trifling feverishness, from some article of food, chafing of clothing, heat of bed-covering, or other causes. From the age of fourteen or sixteen, such an emission may occur from such causes where the person is guilty of no impure act or thought. It is not probable that such *accidental* causes would occur with sufficient frequency to produce any injury; should they exceed one or two a month, however, the probability is that there is or has been some delinquency of thought or act, to which the emission is due.

There is no specific amount of semen that a man can produce in a lifetime, as is ignorantly supposed by a few individuals, after which he is doomed to impotence. It is very like other secretions, all our glands and organs have a capacity beyond the absolute requirements of nature, to insure against possible contingency. The saliva, bile, gastric juice and other fluids are examples, and much more semen can be secreted than is required for the perpetuation of the race; reasonable indulgence in wedlock is allowed for, but even in this relationship excess is possible. Exact limits cannot be prescribed, but it is safe to say excessive indulgence is too often the rule. All our organs are nourished by the blood, and all secretions are drawn from material in the blood, hence an excessive secretion in one direction will deprive other parts of the body of their due supply of nourishment; this is the reason of debility resulting from excessive secretion of the seminal fluid. As else where shown, masturbation has its own evil effects aside from merely stimulating the secretion of semen.

Lewd reading and impure thoughts induce lascivious dreams; these produce sexual excitement, and in the non-resisting state of slumber the semen is secreted (for in man the secretion can be produced in many ways besides the natural act of coition) and passes off. Where a young man has an emission and has never been addicted to masturbation, and is not accustomed to impure thoughts or reading, he need not distress himself. Even if not abso-

lutely natural it is not worth a thought. If he is not so certain of his purity of character and thought, it is another matter, for the sexual organism may be dangerously stimulated by continued indulgence in even impure thoughts. To those who have indulged in self abuse the later remarks in this chapter are commended, for there is hope for even the most injured victim, though no one can safely put off reform, and so long as the practice continues the harm is being steadily multiplied.

Even the most virtuous will probably have an occasional emission from one or another cause involving no impropriety on his part. One or two a month may be perhaps thus accounted for; should they occur more frequently it would be well to ascertain whether there is not some fault on your part, overheating diet, or more serious delinquency. It is true a strong, vigorous person, accustomed to active outdoor employment, nourishing food and otherwise simple habits, may *endure* even three or four emissions per month without incurring any *severe* penalty; but it is not vigorous persons, who usually have these accidental emissions; the slight accidental causes which will produce them in the weak and delicate have no effect on the hardy; the danger is,too, that they cannot be kept within these limits if allowed to attain them. The mere fact that the organs have become habituated to such action will lead to their more and more frequent action, till control is lost of that passion which it was designed our higher nature should restrain within its due and proper sphere.

Horseback exercise is bad for persons subject to seminal emissions, and may, indeed, be the original cause in individuals peculiarly sensitive.

Three or four emissions a month can be endured by almost any unmarried person of eighteen years or over, but even this number is apt to be some drain on the system, and the debility induced thereby will be likely to increase the number of emissions, which in turn will increase the debility, and so each in turn acting in steadily increasing ratio, will soon become highly exhausting.

Of spermatorrhœa the most frequent producing cause is self abuse. If this is practiced after the age at which the

semen begins to be secreted, each act will be accompanied by a discharge of this fluid, as well as being followed in a few days by further emissions without the abuse being repeated. Generally, however, in recent cases of masturbation, before this second emission takes place the excitability produced by the first act tempts to the repetition of the abuse. As the frequency of these indulgences are usually increased by the victim as he becomes confirmed in the habit, the organs soon become morbidly sensitive, pains and inflammation are frequent, the emissions take place on slight provocation and become very frequent during sleep and even in the day time, sometimes even without the patient's knowledge.

These emissions become a drain upon the system, sapping away the vitality of the victim. The painful erections, the soreness, and other local evils are but a small part of the effects. The blood which should nourish brain and body is impressed to supply this special drain, the effect of masturbation on the nerves accelerating the exhaustion of the vital powers. Every faculty of the mind suffers, and the victim is liable to become a madman or a driveling idiot. Specific diseases, as consumption, heart disease, and others, are also often induced; or the result may be an entire wasting away, and death from the mere exhaustion of the life powers. If not quite so bad, the victim may linger for years a confirmed invalid, or with the power of reproduction destroyed.

It is difficult to exaggerate the probable, nay, almost certain results of continued masturbation, and as long as you practice this habit you are on the road with steadily increasing speed toward one or another of the several, but all horrible ends. When the habit has been indulged in in youth but discontinued for years, a weakness may have been produced which results in too frequent emissions when manhood is reached. So long as the habit has not been, and is not resumed, these cases are speedily remedied by proper treatment.

The first and imperative step toward cure in all cases is the total and immediate discontinuance of self abuse. Before entering upon the details of treatment I may here remark as an encouraging fact to those who find it difficult

to relinquish the habit, that so long as they *do* feel it difficult to stop they have not reached the *worst* stage of spermatorrhœa. There is still vigor in the organs which may be fostered into health. By and by you may find no trouble in leaving off the practice; and why? simply because the organs have lost all power of controlling the semen, which as fast as formed dribbles away without causing any erection, or passes off through the bladder, while the patient fancies because his nightly emissions become less frequent that he is recovering health! If there is any case entirely beyond the possibility of cure this is it.

The reader should disabuse his mind of the falsities so cleverly and persistently reiterated for many a year by quacks preying upon the misfortunes or fears of the victims of self abuse. By representing the habit and its results as im measurably odious and degrading, they increase his repug nance to confide in his parents, clergyman or family physician—the best and safest counselors—and to seek the advertiser's aid. Their primary falsehood is that these ailments can only be treated by one who has devoted many years to the study, or that the ordinary remedies are valueless, but that each advertiser (and he only) has the real skill, and has discovered the particular medicine or mode of treatment sure to be effective. In truth the safest and most effectual treatment is very simple, and will succeed where *any* treatment will. Indeed, most patients can cure themselves, if they will only persevere, as well as any one can cure them. Certainly, if advice is needed, the family physician, who is familiar with the constitution and can personally examine the condition of the patient, is better able to treat him than a stranger who has never seen him. None of the advertising "physicians" possess any remarkable skill or have really any wonderful discoveries. They are almost wholly ignorant and in ability not up to the average standard of reputable practitioners.

I believe ninety-nine out of every hundred of these patients can cure themselves. The first impulse will be to take medicine of some kind; to most people it will seem absurd to tell them not to; they will think it absolutely impossible to effect anything without the aid of somebody's

specific, or pills, or extract; or if not a quack nostrum at least a physician's prescription. It *is* possible to stop these emissions by medicine, but it is like driving in the measles. The medicines which will do this are powerful poisons though undoubtedly used in some of the drops, or elixirs of the quacks. The temporary suppression will be followed by an increase of the evil, or may aggravate a simple case into an incurable one. Simple tonics, preparations of iron, or the like may be in some cases of slight benefit as an aid in toning the system, but one who designs self treatment had better let *all* medicine alone; the probabilities are that he will only retard his case by any attempt at prescribing for himself in this line.

The aim should be to build up the general health. So long as the system is debilitated spermatorrhœa cannot be cured. Where the great laws of health regarding diet, exercise, cleanliness, etc., are observed, the tendency of nature is toward a cure; but these must be carefully and perseveringly carried out. It is better not to worry about, or pay special attention to mere "symptoms." If you fancy you *are* dull, or are losing your memory, or are having pains from your ailment, it will do no good to fret about them. The quickest way to cure them is to attend to the general health, with returning vigor, "symptoms" will vanish if they ever really existed beyond your own excited imagination. There is a good deal of nonsense about some of the "symptoms" upon which the quacks lay so much stress. Take, for instance, the deposits often found in the urine. Though semen *may* in rare and extreme cases be found in the urine, what is represented to be such is nearly always merely a mucus discharged from the bladder, where it is the result of slight inflammation or cold. It has nothing to do with the disease of which it is asserted to be a "symptom" and is no more serious than the discharge from the nose in case of cold in the head. The "brick dust" deposits are merely the natural way nature gets rid of certain foreign substances, which if not got rid of may result in stone or gravel. The theory that one kind of deposit is of an acid nature, while another is alkaline, and that the way to treat them is to administer acids or alka-

lies as medicine, I think fallacious. It is only adding materials for more deposits, and simple diet, fruits largely included, will soon rectify most troubles of the kind.

In the majority of cases of spermatorrhœa the emission takes place during the unsound slumber immediately preceding waking, generally accompanied by dreams of a lascivious nature. If the patient can awake instantly without this intermediate stage between sleeping and waking, the emission is often avoided. Several appliances are sold to accomplish this. As the penis becomes erected and enlarged before the loss takes place, it is claimed that a ring or belt fitting the organ in its quiet state will be too small to permit the enlargement without causing pain and awakening the sleeper. At first this is the case, but the penis becomes callous to the pressure after a few times, or the sleeper is, perhaps, slower to awake, and the semen is forced past the obstruction by a violent effort, or if it does not pass from the person, is yet discharged from the glands and remains in the urethra until the removal of the ring permits its escape. There are serious dangers connected with the use of all contrivances for preventing the emissions by pressure on the penis—the semen if prevented from escaping from the penis when discharged by the glands, may be forced backward into the bladder, and after one case of this kind it is more apt to seek that route, and render the complaint less easy of treatment. Strictures or ruptures are also liable to result from their use.

The prompt awakening, so important, can be promoted by getting up instantly after waking, whatever the time may be. Unless absurdly early, it is better not to retire again; the next night you will sleep more soundly. If you do go to bed again, before doing so, spread open the bedclothes to expel the warmth; meanwhile walking around, rubbing the limbs, chest, and back with the palms, or swinging the arms to equalize the circulation. If there is heat about the genital organs, or tendency to erection, the application of moderately cold water thereto will prove beneficial. Lying in the heated bed after awakening, even if you do not go to sleep again, is enervating, even if not in all cases immediately provoking sexual excitement.

The best position in sleeping is on the right side. Lying on the back is almost certain to cause discharges if the person is at all liable to them. An excellent way to prevent falling into this position while asleep is to secure around the body under the arms, a strap or belt, of any convenient material, in which are placed numerous pins or carpet tacks, with the points toward the body, in the parts of the belt coming at the person's back. The pain caused on turning over on these points when the sleeper turns on his back will be sure to arouse him, and without any harm.

Excessive bed coverings are to be avoided, sweltering in blankets is almost certain to bring on excitement, followed by an emission. The coverings should be only sufficient to keep the person from suffering from the cold. Feather beds have the same objection. Straw, hair, or the sponge or cork mattresses are better, and when accustomed to the change you will find them more enjoyable than the feathers. Any cool hard mattress is good, its contents are not very important, corn husks are preferred by many to all other stuffing.

In diet, spices, rich gravies, cake, confectionery and all indigestible food should be avoided. The patient should eat plenty of ripe fruit, vegetables, preparations of oat or corn meal, also Graham and brown bread if he likes them. As meat is stimulating it should be eaten sparingly, but as the system is specially in need of nourishment at this time, I think a little poultry, beef, or mutton at dinner is advantageous. Immature meats, as veal, are to be avoided. Moderation in eating is important. It is not essential that prison diet should be adopted. The articles named above afford a wide variety to choose from, and there is less danger with them of overeating than when the appetite is spurred beyond the natural demands of the stomach by stimulating sauces, catchups, and spices.

Coffee and tea are often injurious, though some persons may find it too hard to give them up; if so, they should be used in moderation. In most cases chocolate or cocoa will be found a pleasant substitute, and both are very nourishing. Milk appears to have a tendency to produce the emissions, though this would probably not be the case

if its use were restricted to the earlier portion of the day. *Any* liquid taken toward night is apt to have the effect complained of, and a simple glass of cold water taken in the evening is almost certain to produce an emission in a susceptible person. To take no supper or "tea" is often a good plan, though a light dry one if hunger demands it can generally be indulged in with safety. I think wine and liquors of every kind should be avoided. Wine, or more generally ale or porter, is frequently recommended as strengthening. I doubt it being so in this ailment—its stimulating effect would more than counterbalance any alleged value—even if pure, while the compound of poisons almost universally sold under these names only need to have their real constituents disclosed to refute all claims which might be made by their advocates, supposing them to be genuine articles. Tobacco is bad.

Exercise is absolutely necessary, but many on the spur of a new resolve, may be apt to go to excess. Violent exercise is injurious, in this case especially; a regular course of gymnastics would in many cases result in harm. Calisthenics, or exercise without apparatus, in the morning on rising and at night before retiring, will be beneficial, but some regular employment must be the main source of exercise. Pleasure in the exercise is half its benefit, and ten times the good will result from some active employment in which the person is interested, and which diverts his mind from worry and anxiety, than from the same amount of exercise expended in aimlessly lifting up a dumb-bell. Tenpins, rowing, and like diversions, are often beneficial; so are garden work, digging, and light out-door labor. The exertion should always be proportioned to the strength; never prostrating, and the change from previous habits, in this respect, should not be too sudden. While exercise or labor up to the point of just tiring the patient will be good, exhaustion will be bad; any strain, too, will be apt to affect the weak part.

The mental treatment is as important as the physical. If impure thoughts have power to produce these emissions, it is easy to see that they can defeat all attempts at cure if persisted in, as the organs are then peculiarly sensitive and with less strength to resist the exciting influence. Purity

of thought and action is essential to successful treatment. This may be encouraged by substituting reading of an elevating nature, which shall at the same time awaken thought and interest in new directions; history, biography, or any innocent subject the patient finds most interesting. Cheerful, refined, and agreeable society is desirable, and it is a mistake to avoid it; the keen sensitiveness sometimes felt by patients is usually the result of groundless fears that the patient's weakness is patent to the casual observer.

Frequent cold baths are the best "medicine." These may be taken even as often as twice a day, night and morning, if there is a pleasant reaction and glow after them. This should be promoted by rubbing the body and limbs briskly with soft towels and with the palms of the hands. If followed by a chill and heaviness the bath is an injury, but these result usually from staying in the water too long. Sponge baths may be substituted if conveniences for a full bath are not possessed. A basin of water and a large soft sponge are the materials needed. The body is to be wet thoroughly with cold water, with the sponge, and then dried briskly as above directed. Hip baths, and local sponge bathing with cold water, may be used to almost any extent with benefit.

The patient must not be discouraged if his cure seems tardy. It is perhaps natural that he should expect immediate improvement after commencing treatment, but this will be gradual for weeks or even months. Having become accustomed to act in this way, it will be some time before nature can regain its sway and restore the perverted functions to their natural channel. The tendency, however, is always toward this natural state, provided all exciting influences are removed. It is the errors in diet, want of bathing, and other causes which generally retard the recovery after masturbation is discontinued.

I have said that seminal weakness may result from libidinous ideas alone. It may also result from inflammation or from several other causes. These are, however, unfrequent, and the treatment detailed above is safe to follow in all cases. If worms are the cause, as may be detected by the itching in the rectum, and in the neighborhood of the base

of the penis, they can usually be removed by injections of water at a temperature of 60 or 70 degrees, Fahrenheit. About ten o'clock in the evening is probably the best time, though whenever the itching is severe it indicates a suitable time for the injection. As much water should be thrown up as the intestine will comfortably hold; this must be allowed to descend suddenly, and will generally wash out the worms collected within reach of the water.

Marriage is *not* a cure for seminal weakness, on the contrary an aggravation, intensifying the debility. The strength should be fully restored and the ailment entirely overcome before the patient enters into matrimony. The fallacious idea has been encouraged by quacks to get rid of patients whose money had become exhausted, and is sometimes made the excuse for illicit companionship; such associations open the gates to irreparable mischief, and the probability of incurring one of the most frightful diseases to which erring humanity is liable.

CHAPTER XXVI.

IMPOTENCE—REAL AND IMAGINARY.

NO form of debility is held in such dread as the loss of genital power. The agony of mind suffered by one who supposes his power of reproduction has become destroyed or impaired is beyond description. The dread of entering the marriage state devoid of the ability to perform its duties, has induced many to form immoral associations, or to resign themselves to despair—perhaps suicide. Real impotence is extremely rare, though it *may* result from confirmed bad habits, and libertine courses, and is to be justly regarded as a *possible* result of such indulgence, if persisted in.

So tender is the human mind on this subject, and so grossly have pretenders distorted the truth that a vast amount of needless anxiety has been caused, the fears of most of the

readers of pernicious "medical" advertising pamphlets being without any reasonable foundation. What is really proof of vigor in many cases has even been held to indicate the want of it! Thus, the instantaneousness of the discharge in the act of coition, after long abstinence, is given as proof of want of power, whereas, after long abstinence, keenness of any appetite is quite the contrary to proof of the inability to enjoy. Excessive indulgence may produce temporary loss of power, but rest, temperance and attention to the rules of health will suffice to restore.

Many persons are childless from no immorality, nor from any malformation or other special trouble with the reproductive organs. Luxurious habits, indolence, and similar causes may interfere with the increase of the race. This is shown as well in individuals as in nations, where exercise (labor) strengthens and invigorates the system and so increases the power of performing all the duties of the various functions. A state of muscular activity, too, prevents the passions gaining too great an ascendancy. Idleness is apt to foster voluptuousness, and the indulgences which should be incidental and occasional are apt to become excessive; this over-indulgence proves an unnatural excitement and increases the desires. Over-use begets weakness, and this reversing of the law of nature tends to the extinction of the race. An example is given by Dr. Hall of a Russian nobleman, childless, who was banished to Siberia. He and his wife, who accompanied him, were compelled to live in a miserable hut, and work hard every day, after fifteen years they had a house full of healthy children.

The importance of moderation in the gratification of our natural functions is in none more important than this. Like one given to over-eating, the appetite becomes inordinate, there is no satisfying its demands, while at the same time the pleasure is becoming less and less.

Young men who have indulged in masturbation are often haunted with the fear that their powers have been destroyed. This is rarely the case, though a temporary weakness may have been induced which will require attention. Such persons we refer to another chapter, where the treatment of difficulties resulting from self abuse is given in full.

Provided the habit is discontinued, a sound state of health promoted by exercise, bathing, and healthful food, morbid excitement subdued by purity of thought, little fear need be apprehended of incompetence. Few young men have gone beyond the point where these rules will not restore them.

Various stimulating preparations are sold under the titles of Rejuvenators, Elixirs, Invigorators, etc., and prescriptions of a similar nature are given by advertising practitioners, but such administrations are directly opposed to the real needs of the cases. Such stimulants, tincture of cantharides being the most common, only excite the passion, which is already unduly in the ascendancy. It is true this artificial stimulus may give an appearance of vigor, but it is only deceptive, using up the powers of the system at an increased rate. In these cases the powers of the organs become weakened, and if this system of medication is persisted in, total exhaustion will result, or by goading the system to unnatural efforts, even life itself may be involved. In the majority of cases where these medicines are taken there is not even lack of power—merely excess of desire. That the very excess of desire, resulting even from natural power and abstinence, may actually prevent its gratification is unquestionable—Monteith referring to it as early as 1572. Mistaken as to the cause of his inability, a young man is overcome with horror and remorse, and greedily seeks the aid of these panaceas for invigoration, though in reality nothing ails him. The injury in such a case is certain nearly as much so as in the cases of their use to stimulate really jaded powers, which require rest not stimulation.

Old men, "hard cases," who have been confirmed masturbators, have more grounds for their fears of impotence. One of the ablest medical instructors in this state, in a lecture to his class recently, said in relation to these subjects: "I have no faith in medicines. Such cases are always taking phosphorus, strychnia, or some other tonic, but I do not see that it does any good. You must put your patient under the best conditions for health. Make him ride horseback; make him so tired with physical exercise in the air and sunshine, that he will sleep soundly and

wake without an emission. Make him eat simple food, and eat nothing after, say, six o'clock in the evening. Advise him not to take wine or strong drink; for strong drink is rarely necessary for a young man; much of it is carried off by the urine, rendering this irritating; and wine, as Shakspeare has it, prompts desire and damages the power of performance. Look out for the function of the bowels—in a word, attend carefully to the patient's hygiene."

I would not advise any reader to attempt to treat any case of impotence which requires the use of *any* medicine or surgical operation, however simple. The avoidance of exciting causes, active employment, bathing, nourishing but not stimulating food, temperance, early hours, and purity of thought will be sufficient in all common cases of any real or supposed trouble of the kind. If you have reason to fear your case requires more vigorous treatment, the only safe way is to consult a reputable physician. The following instructions which I quote from the professor cited above, are designed as a suggestion to practitioners called on to treat such cases, rather than for individuals to adopt for their own treatment. In the same lecture from which I have already quoted, he says: "Now, what surgical means have we at hand to remedy this affection, of which the only pathology, in the majority of cases, is a little congestion in the postatic portion of the urethra, associated with a great deal of morbid sensibility, and a too ready excretion of the seminal fluid. The surgical means are such as blunt this unnatural sensibility, this sign of weakness brought about by ungratified desire. The first of them is the occasional passage of a simple steel sound. This, gently done, has the effect of begetting a better feeling about the genital organs, even in old, broken down cases, and in young men, virgin to such treatment, it has a very decided effect, and is often the best of all means for diminishing the sensibility. Pass the sound very gently, and never oftener than twice a week. Tell the patient to think little about his genital organs, to leave them in your hands, and not meddle with them himself.

"Where this fails, I have used tannic acid, a drachm to the ounce of simple cerate. I apply it by means of a

sound having a half-dozen little saucer-shaped cavities upon its convexity along the part that comes in contact with the prostatic urethra in passing the sound into the bladder. These cavities I fill with the ointment, and wipe the instrument clean, leaving the little cups full. Then, having first passed a sound a little larger, I pass this, and keep it in the urethra for five or ten minutes, sometimes even longer, but best not so long as to produce spasmodic contraction of the perinæal muscles. This treatment is based on scientific principles. I apply this astringent to the congested surfaces, and the result is that the patient, if he follows out the hygienic treatment carefully and honestly, is benefited, and I have saved him from the hands of the quacks. As a general rule, I do not have to make the application more than two or three times.

"There are other cases still more difficult to treat, where the seminal loss is occurring so constantly that the delusion of the patient's mind is kept up, and a prompt remedy is needed. In these cases I employ the old remedy, nitrate of silver; but the cases in which I use it are more and more rare. Into a catheter, fitted with a piston, and having one small hole in its extremity, I draw up three or four drops of solution of nitrate of silver—sometimes ten grains to the ounce, sometimes stronger—and, having introduced the instrument to the proper point, I expel the fluid. Here I show you Lallemand's instrument. It is passed in so as to bring its point just into the prostatic portion of the urethra; then the stylet—bearing at its end a little cup of strong nitrate of silver ointment, or of soap covered with the powdered nitrate, as I have used for years—is pushed out. But this operation I would not advise you to employ, until you are thoroughly familiar with these cases. It is done far too frequently."

In reference to the use of caustic, at one time very generally recommended but now in less esteem by medical authorities, he says: "I tell you I believe much more harm than good has been done by the use of Lallemand's instrument. I have seen more strictures, more tender urethras, more cases of intense neuralgia of the neck of the bladder produced by it than I can tell you. It is only to be

employed in serious cases, and then very exceptionally. On the contrary, the use of tannic acid, in the way I have described, can be more generally adopted, and I think you will find it usually sufficient."

Regarding the frivolous light in which sensualists are often apt to strive to place this matter, as though it were one of no importance, a mere bugbear raised by moralists, he adds: "The course to be pursued with patients suffering thus, is not to treat their complaints as light and foolish, not to make a joke of them. It is no joke; in reality, it is a very serious business; and the circumstance whether the young man falls into the hands of a sensible physician who will be his friend, often settles the question of his usefulness in life. Many a young man throws himself away through the fancy that he is impotent, though he is not likely to confess it except to some old, gray-headed doctor."

CHAPTER XXVII.

PROMOTERS OF VICE—PLAUSIBLE BUT FALLACIOUS THEORIES—UNRELIABLE AND DANGEROUS INSTRUMENTS AND MEDICINES—WARNING AND NEEDED ADVICE.

THE subject which I propose treating in this chapter is one I would gladly avoid, were it not that the presentation of some truths regarding it is absolutely necessary for the safety of many unsophisticated persons. There are many persons who are kept from immoralities only by the dread of penalties, and if these believe the penalties can be evaded they will step beyond the bounds of virtue. In addition to the open temptations to immorality which are a social cancer in great cities, there is another form in which temptation is being insidiously introduced even into the most retired rural localities.

In many journals are more or less openly advertised articles under the titles of "Male Safes," "French Safes," "Something for every man—married or single," or in more

obscure terms. To those ignorant of the meaning of these, information is given in circulars; and the same class of goods are often advertised on the covers of lewd books, or in catalogues of "fancy articles." Were the representations about these articles correct, it would be injudicious to add to their publicity, by denouncing here or in the public prints the immorality of their use, as tending to bring to the attention of those seeking safe means of indulging in illicit pleasure. As the assertions of the advertisers are false in many particulars, I think a true statement will do good, restraining those who might otherwise be led into sin by the plausible arguments of the venders.

The safe is a small cap of thin rubber or other material, and is intended to be worn over the extremity of the penis during the act of copulation. It is claimed, and might seem very reasonable to casual inquirers, that while this thin rubber does not interfere with the pleasure, it prevents any escape of the semen, and consequently fecundation cannot result. Some of the sellers of these articles defend their morality on the plea that they are designed for married persons who cannot afford or do not desire increase of family; and they even appeal to their readers *not* to use them illicitly, while they take every means to reach the young and unmarried with their circulars, filled with such reading as will arouse or stimulate passion. As they offer in these very circulars the "safe" as a means of gratification with perfect immunity, is not the intention self-evident?

There is no safety in evil doing. These "safes" are not only very liable to rupture in using and so afford a very uncertain guarantee against pregnancy, but to the male there is positive and serious injury done, as I shall presently show.

There is another practice which, through its lamentable consequences, is now attracting the attention of physicians. This is known by the term "withdrawal." This consists in only partially performing the act of copulation, discontinuing it previous to the flow of semen. The act thus becomes little more than masturbation, and results in a very serious and peculiar combination of ailments. The power of enjoyment is lost, and instead the act is followed by

intense pain; the whole system becomes weak; pains in the loins, and a soreness and pains when sitting, so great as to cause continual torment. So sore do the implicated parts become, that the lightest clothing causes discomfort, and the calls of nature are imperfectly performed. At the same time physical, mental, and moral power seem to be leaving the victim, and depression, anxiety, and dire forebodings fill the mind.

The sexual act must be full and as nature intended; any tampering with it is fraught with evil to both parties. The safes produce much the same results as the withdrawal. Of the evils of promiscuous indulgence out of wedlock, I do not purpose to speak. God himself has affixed penalties thereto, which I trust will restrain every reader of this book, should honor and morality combined prove insufficient. While marriage is unquestionably the natural condition for all human beings after the full development of their powers, the restraints of celibacy are not necessarily incompatible with full health, and this restraint is far better than to risk the almost certain penalties of illicit gratification.

Various pills and potions are advertised, their object being to destroy the child at one or another stage before birth. That young girls sometimes give way to temptation, trusting to the powers of these nostrums in case of need, there is no doubt. Generally they are mere inert compounds, and will not produce the result stated. When effective it is only at the expense of severe injury. Of those who place themselves under the care of the male or female vultures who offer "confidential treatment," a large number are killed outright, many live only to linger in almost intolerable suffering a few years, and it is doubtful if a single one escapes without painful incurable ailments, and functional injuries. The act is unnatural, and even when induced by accidental causes, produces serious results, though less dangerous than where intentional.

I consider the duties and gratifications of the married state a subject among the most sacred on earth, to be approached only with the greatest reverence and the utmost delicacy, but a word or two may be of vital importance. In a certain book intended for general circulation, excellent

in many particulars, and containing much that is true and valuable, but marred by one or two grave errors, as I consider, the author attempts to prove that sexual gratification should only be indulged in with the direct intention of producing offspring in every case. Now, to insure against all possible contingencies, these powers are vastly greater than the demands of mere reproduction, and proper gratification not only compatible with, but productive of health. But there can be excess, and such excess is debilitating, as it overtaxes the powers. The exact amount of indulgence can only be determined by individual experience; so long as health and spirits remain good no harm is likely to result. The act should never be indulged in while either party is exhausted, intoxicated, mentally depressed, or otherwise so conditioned as to be liable to transmit any ailment or general lack of vigor to posterity. What may be but a temporary mood or condition in a parent may prove a permanent trait in the child, embittering its existence from beginning to end.

CHAPTER XXVIII.

OLD AGE—ITS NATURAL APPROACH AND CHARACTER—HOW TO MAKE AGE A MEANS OF STILL FURTHER PROLONGING LIFE—PREMATURE OLD AGE AND HOW PRODUCED—EXHAUSTION OF THE VITAL FORCES.

WITH increasing years, after the prime of life, comes a gradual loss of power, mental and physical. The vigor given to each person to carry him through the various stages of growth and life in this world, has achieved its purpose and exhausted itself in the natural course of events. Though the elasticity and energy of youth has fled, old age ought not to be a state of suffering and prostration. Many examples are recorded of very aged persons performing duties, and displaying an activity which ought to put to shame many modern loafing loungers. Where the consti-

tution is sound, and the habits of life good, old age should be scarcely more unpleasant than any other period of existence.

Old age, though the natural consequence of living, and the commencement of death, can itself, on the other hand, be a means for prolonging our existence. It does not, however, increase the power to live, but it retards its being exhausted; and one may thus affirm, that a man in the last period of life, at the time when his powers are lessened, would, were he not old, finish his career sooner.

This position, which appears to be somewhat paradoxical, is confirmed by the following explanation: Man, during the period of old age, has a much smaller provision of vital power, and much less capacity for restoration. If he lived with the same activity and vigor as before, this provision would be much sooner exhausted, and death would soon be the consequence. Now the character of age lessens the natural irritability and sensibility of the body, by which the effects of internal as well as external irritation, and consequently the exertion and wasting of the powers, are also lessened; and, on this account, as consumption is less, he can with such a stock of powers hold out much longer. The decrease of the intensity of the vital processes, as age increases, prolongs therefore vital duration.

Irritability being thus lessened, lessens also the effect of pernicious impressions and morbid causes, such as the passions, overheating, etc.; it preserves likewise much greater quietness and uniformity in the internal economy, and in that manner secures the body from many diseases. It is observed that, for this reason also, old people are much less attacked by infectious disorders than those who are young.

To this may be added the habit of living, which, without doubt, in the latter period of one's days, contributes to the support of life. An animal operation, which one has carried on so long, always in the same order and succession, becomes at last so customary that it continues through habit when the action of other causes ceases. It is often astonishing how the greatest debility of age will hold out, pro-

vided everything remain in its usual order and succession. The spiritual man is sometimes actually dead; and yet the vegetative, the man-plant, still continues to live; but for the latter, indeed, much less is necessary. To this habit of life it is owing also that a man, the older he grows, becomes still fonder of existence.

If old age, therefore, be properly treated and supported, it can be employed, in some measure, as a means of prolonging life; but, as this requires deviations from the general laws, I consider it necessary to give the rules proper to be observed.

The principal points in this treatment are, that one must always endeavor to lessen and soften the increasing dryness and rigidity of the vessels, which at length occasion a complete stoppage of the whole machine; that nourishment and restoration of what has been lost must be facilitated as much as possible; that stronger irritation must be given to the body, because the natural irritability is so much weakened; and that one must promote excretion of the corrupted particles, which in old age is so imperfect, and which therefore produces an impurity of the juices, that accelerates death. Upon these are grounded the following rules:

1st. As the natural heat of the body decreases in old age, one must endeavor to support and increase it externally as much as possible. Warm clothing, warm apartments and beds, and, heating nourishment, are all means, therefore, that contribute greatly to the prolongation of life.

2d. The food must be easy of digestion, rather fluid than solid; abundant in concentrated nourishment, and, at the same time, much more stimulating than would be advisable at an earlier period. Warm, strong, and well-seasoned soups are, therefore, beneficial to old age; and also tender roast meat and nutritive vegetables.

3d. The tepid bath is exceedingly well calculated to increase the natural heat, to promote excretion, particularly of the skin, and to lessen the aridity and stiffness of the whole frame.

4th. Guard against all violent evacuations, such as letting blood, unless when required by particular circumstances; strong purging, exciting perspiration by too much

heat, indulging in excesses of any kind. These exhaust the few powers still remaining, and increase aridity.

5th. People with increasing years, should accustom themselves more and more to a certain order in all the vital operations. Eating, drinking, motion, and the rest, the evacuations, and employment, must have their determined periods and succession. Such mechanical order and regularity, at this season of life, may contribute greatly to the prolongation of it.

6th. The body, however, must have exercise, but not violent or exhausting. That which is rather passive will be the best, such as riding in a carriage, and frequent friction of the whole skin. Violent bodily shocks must in particular be avoided. These, in general, lay a foundation for the first cause of death.

7th. A pleasant frame of mind, and agreeable employment for it, are here of uncommon utility; but violent passions, which might derange it, and which in old age may occasion instant death, ought to be avoided. That serenity and contentment which are excited by domestic felicity, by the pleasant review of a life spent not in vain, and by a consoling prospect of the future, even on this side the grave, are the most salutary. The frame of mind best fitted and most beneficial to old age, is that produced by intercourse with children and young people. Their innocent pastimes and youthful frolics have something which tend, as it were, to renovate and revive. Hope, and extending our views of life, are in particular noble assistants for this purpose. New proposals, new plans and undertakings, which however must be attended with nothing dangerous, or that can create uneasiness; in a word, the means of continuing life longer in idea, may even contribute something toward the physical prolongation of it. We find, therefore, that old people are impelled to this, as if by internal instinct. They begin to build houses, to lay out gardens, etc.; and seem, in this little self-deception, by which they imagine they secure life, to find an uncommon degree of pleasure.

While the decadence of old age is inevitable, sooner or later, the time with each individual will vary greatly. Many men are as old, except in mere length of days, at

thirty as others at fifty. Premature old age is too common in America. It is a misfortune, but a fault none the less. Hufeland, who has investigated, with rare skill and patience, the various influences tending to lengthen or shorten life, has the following very true and very forcible remarks on this point:

"We may see at present, particularly in great cities, men come to maturity in their eighth year; in their sixteenth, attain to the highest point possible of their perfection; in their twentieth, struggling with every infirmity, a proof that they are already on the decline; and in their thirtieth, have every appearance of exhausted age, such as wrinkles, dryness and stiffness of the joints, a crooked spine, loss of sight and memory, gray hair, and a tremulous voice. I once dissected the body of such an artificial old man, who had scarcely attained the age of forty; and found not only his hair gray, but the cartilages of the ribs, which do not become bones until the greatest age, totally ossified.

"One, therefore, can imitate by art, in our climates, that hastening of the periods of expansion as well as of old age, which, in warm countries, takes place naturally.

"I must now say a few words on the art of ingrafting old age on youth. This is done by weakening very early the vital power as well as the juices, and giving to the vessels the highest possible degree of hardness, stiffness, and want of pliability, which characterizes old age.

"I shall here lay before my readers the surest means to accomplish this, as it is of importance to know such prescriptions, in order that people may be better enabled to counteract them. If one, therefore, will only live altogether contrary to the following rules, one may be enabled to preserve one's self in a state of youth to an advanced period of life.

"1st. Endeavor, by every art physical and moral, to attain to maturity as speedily as possible, and waste the vital power with as much profusion as possible.

"2d. Begin very early to expose yourself to the utmost fatigue. Forced journeys of several days, continual dancing, sitting up all night, and shortening every period of rest, will, in this respect, be of most service. By this

means you will accomplish two objects, that of speedily exhausting the vital power, and that of making the vessels soon hard and brittle.

"3rd. Drink abundance of wine and strong liquors. This is an excellent prescription to dessicate the body, and to make it become shriveled.

"4th. Care, fear, and sorrow, are extraordinarily well calculated to bring on, very early, every characteristic of old age. We have instances of persons acquiring grey hair in the course of one night spent under the highest degree of grief and terror. Now, one might believe that certain causes are absolutely necessary to produce these affections; but there are people who understand, in a masterly manner, the art of seeing everything in a melancholy light, of dreading some evil from every man, and of finding in the most common circumstances abundant matter to excite wretchedness and misery.

"5th. That system, carried too far, or at least badly understood, of hardening the organs by the means of cold, bathing frequently and for a long time in cold water; nothing can be more proper to produce every symptom of age."

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